

COMMERCIAL CAR JOURNAL



with which is combined Operation & Maintenance

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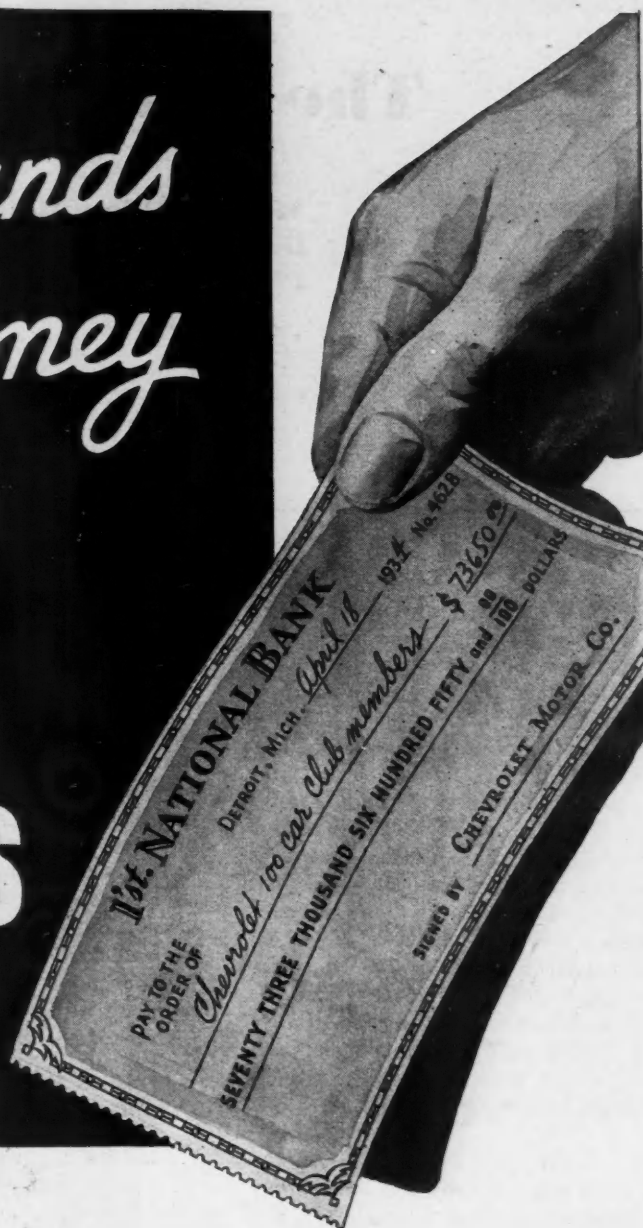
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CHEVROLET MOTOR CO., DETROIT, MICH.
Division of General Motors

COMMERCIAL CAR JOURNAL

The Truck Retail Code

Motor Vehicle Retail Code Group Tackles Problem of Trade-in Allowance and Finds That It's a Heavy-Duty Headache

By JACK FROST

In Charge of Used-Car Guide Development for Motor Vehicle Retail Code

THE proposed truck code of the manufacturers, which was so vigorously opposed by the dealers throughout the country, was turned down at Washington by the N.R.A. and must now be presented by the dealers.

I would like to explain some of the things that enter into the building of a truck code which possibly we haven't thought of. I say that because we have had such a large number of suggestions raised as to how it could be done. I believe, however, that we have exhausted the possibilities as to the various types of formulas that can be employed and we have concluded, after considerable study and time spent with dealers and manufacturers, that it is going to be a very difficult task.

TO begin with, there is no definite point that you can make in the truck field on the basis of weight rating for the simple reason that the great majority of trucks not built by standard passenger car manufacturers are trucks that you might call "tailor-made." So far as the light weight truck is concerned, no one will admit that his truck is a ½-ton truck if he is in competition with a ¾-ton truck.

There has been a good deal of talk about taking all trucks over 1½-ton capacity out of our code and including them in the heavy truck code. The last few issues of the *Saturday Evening Post* have brought the answer to us. Reo has come out with a 1¾-ton truck, Studebaker is advertising a 1¾-ton. It is a simple matter to shift over and put a truck in the unlimited field, and so far as the difference in dollars is concerned, you have the code open at one end.

THE passenger car formula is not designed to take care of commercial cars. There are 117 types of bodies, and 464 different chassis models in the truck field made today by people still in

MR. FROST presented the following illuminating remarks at the recent meeting of the National Emergency Committee for the Motor Vehicle Retailing Code. They are given here in full because they reveal the big problems which must be solved and the solutions proposed.

The remarks preceded the adoption of a resolution authorizing the National Control Committee of the Motor Vehicle Retailing Code to proceed with bringing all trucks under the code and with providing a method for determining allowance values of all trucks.



Mr. Frost

business. There are 24 manufacturers making trucks with a rating of 1½-tons at least. There are 80 different chassis models in that group. The total number of chassis models in the passenger car Guide Book is less than half of those that would have to be described in a truck guide book. A guide book to cover trucks chassis alone must of necessity be just twice as thick as the present passenger car Guide Book.

I would like to say for everyone on the staff that we do not think it is profitable to build on the Guide Book basis anything sound concerning trucks.



However, we can go about the building of a time depreciation basis for trucks that is far sounder, at least, than the one presented by the manufacturers.

THE scales the manufacturers proposed to establish are pertinent to our dealers. They had a margin on dollars. That gave you one depreciation schedule. All you had to do was sell the customer a rear view mirror and that might change the classification. A time depreciation scale is the only known thing that can be made to work, and even it presents many hazards so far as making it a simple thing to work out, and so far as preventing the complications that will necessarily arise in view of the truck formula that is developed.

One hundred and seventeen types of bodies of standard description do not include, of course, many hundreds of other types of bodies built in body shops all over the United States. So we get into complications there.

Equipment has a special value on trucks. There are certain types of special equipment that cannot be classed as accessories. It is equipment that has

a distinct value to the owner and it has to be classed and given a standard rate.

The method we propose to pursue is this, if it meets with approval:

THE first consideration is that no method has ever been provided for determining the age of a truck by means of the descriptive matter, what you might call serial numbers, engine numbers, etc. On the basis of what the descriptive matter tells you, instead of being able to say that a certain truck was a 1931 model, you would find that the same job might carry through a period of two years and sometimes longer. And so, the starting point to determine a truck's age is not possible as it is in passenger cars.

We have, therefore, to rest on the premise that the owner must supply the information as to the date of first purchase. That presents another problem with respect to starting this whole program. Trucks migrate and tracing back to find out the dates of first purchase and making the owner prove it, is just one of the little complications.

The great majority of units consigned by make are easily traceable since they are your passenger car manufacturer's units. However, no other makes of trucks that information will have to be requested of the man who is trading in the truck, and the dealer will have to wait to get it before he can establish the time depreciation list, as against the factory list price.

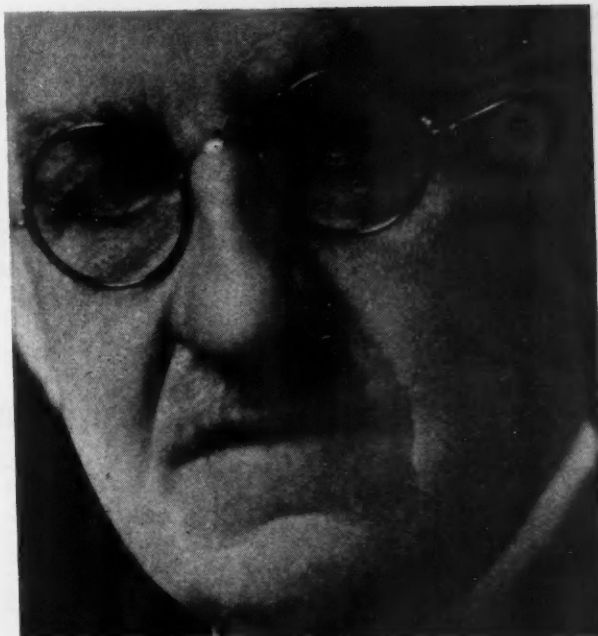
THE time depreciation scale is a certain amount of per cent each month for each quarter. In order to determine the value of the truck you have to get the factory list price and from that scale down the number of months that the truck is of actual age as against that factory list price. As a consequence, the dealer will have to put both the owner and the buyer off while identifications and evaluations are made.

This presents another complication. The truck manufacturers' proposed code suggested that the only method they knew for getting identification information was to call up the dealer handling the truck to be traded in. Now I can tell you that if a Chevrolet dealer calls a Federal dealer, gives him the identifying numbers and a description of the chassis, and then asks him what year and type it is so he can start in to get a factory list price, he will be telling him practically who the prospect is. This would result in the passenger-

(TURN TO PAGE 38, PLEASE)

National Control Committee of the Motor Vehicle Retailing Code

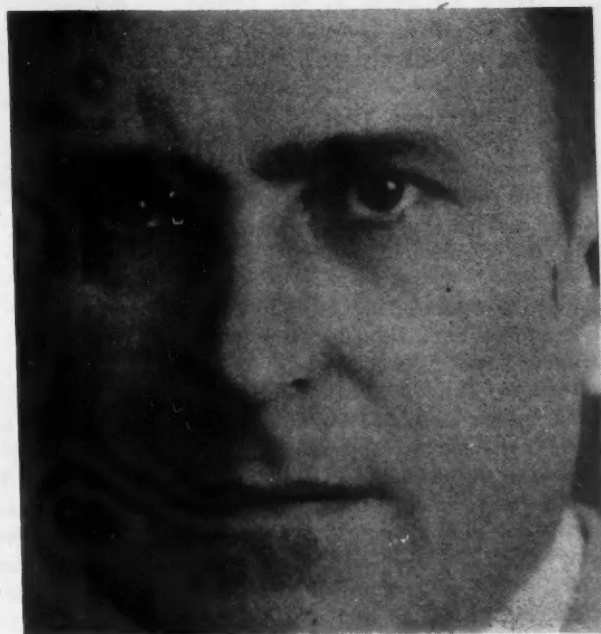
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Belleville, Ill.**



"Wanna Buy a Duck?"

Mr. Eastman, the Federal Transportation "Czar," Tries to Sell the Industry a Couple of Lame Specimens

By GEORGE T. HOOK

Editor, Commercial Car Journal



FOR a long time on the stage and over the radio, "Joe" Penner, the popular comedian, has been trying to sell his duck. To date he hasn't found a buyer.

Now comes Federal Transportation Coordinator "Joe" Eastman with two ducks of his own incubation which he is trying to sell jointly to the truck industry, to the railroads and to Congress. The ducks in question are his proposal to place trucks under federal regulation administered by the Interstate Commerce Commission, and his plan to help the railroads regain much of the less-carload-lot merchandise traffic that was lost to motor trucks.

If Mr. Eastman has as little success selling his ducks as Mr. Penner has had, it will be because they lack something as pedigreed pets, and aren't the sort of good eating that most appetites find agreeable.

It would be unfair to contend that the specimens are more foul than fowl. They are just a trifle feeble. The parentage is above reproach, but something happened in the hatching.

FOR his incubator Mr. Eastman gathered eggs from shippers all over the country. These eggs offered unqualified and overwhelming evidence of the motor truck's superiority as an agency giving satisfactory, efficient and economical transportation service. They should have hatched into something faintly resembling motor truck favoritism, or, at the very least, a hands-off policy to encourage unhampered development. Instead, the final result



"Joe" Penner—comedian

gives one the impression that the evidence was scrambled and the ducks pulled out of an Interstate Commerce Commission brief case.

For it remains a fact that the evidence gathered by Mr. Eastman not only constitutes a deafening chorus in praise of the many advantages of motor trucks, and an indictment of rail-

road management's inefficiency, but, more than that, is a scathing arraignment of regulation under federal auspices as administered by the Interstate Commerce Commission.

THIS fact is stated with startling brevity in the coordinator's report dealing with l.c.l. traffic, in these words:

"Patrons [35,468 of them] state that this diversion [of l.c.l. freight—in 1932 the highway volume was twice that handled by rail] is due to lower total charges and to better service with respect to speed, completeness, convenience and safety of lading."

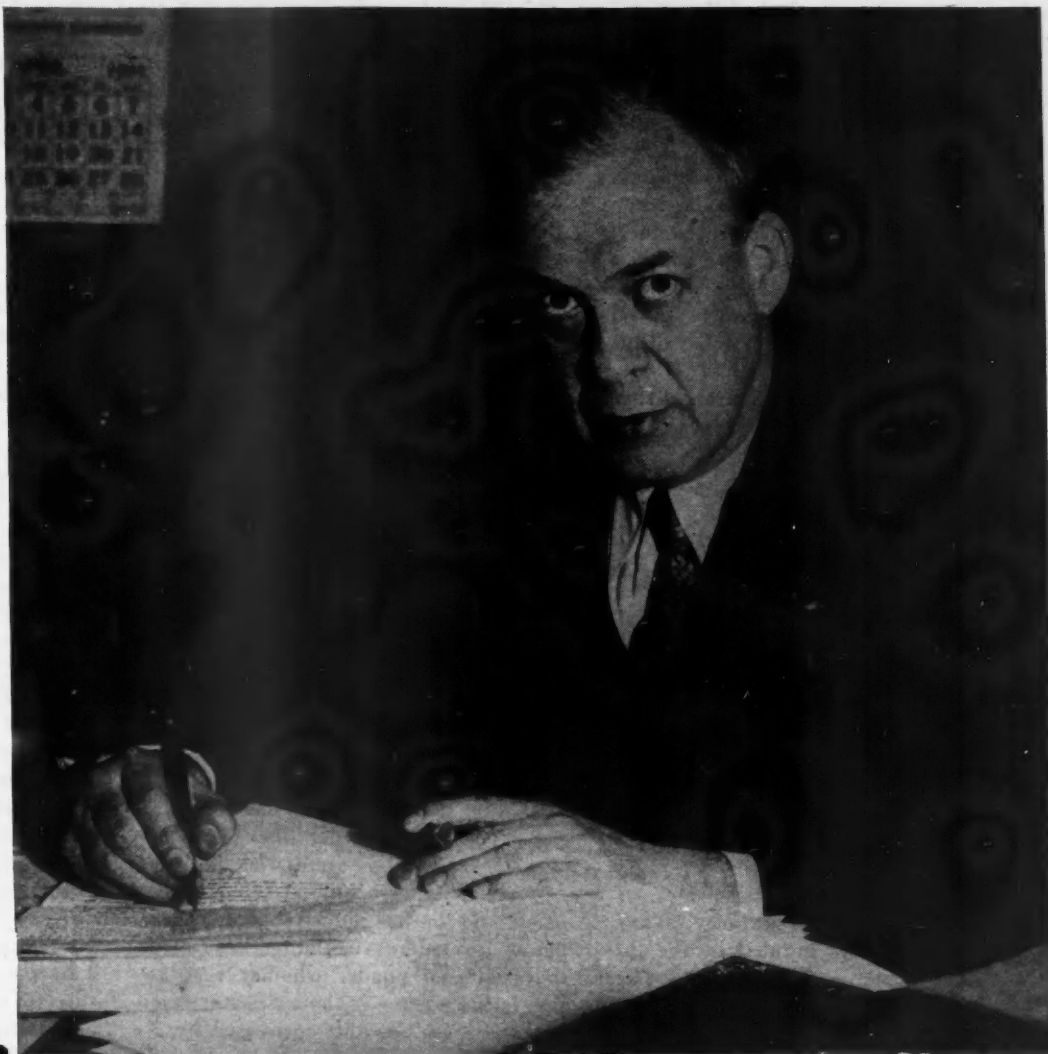
If you prefer to be less brief and more startling, you can add these facts:

"Motor carriers divert considerable traffic from rail l.c.l. service because of the complexity of rail classifications."

"Rail l.c.l. packing requirements frequently are unduly burdensome and act to divert merchandise traffic from rail carriers."

HERE you have in a few deep breaths the case against federal regulation of the kind inflicted on railroads and which motor trucks might expect. The railroad plight isn't due to truck rate-cutting of a non-compensatory nature, because the report states that in 1932—when most business men were losing their shirts and the railroads had lost everything but their high-hat attitude — "common carriers responding to the questionnaire operated at a profit (above operating expenses and taxes) of \$194,000, which was slightly less than 2 per cent upon the capital invested. Reporting contract haulers in 1932 made a profit of \$710,000 above operating expenses." Eastern and Southern common carriers, a footnote points out, "operated at a 9 per cent and 22 per cent profit respectively."

The plight must be laid directly at the door of regulation. Regulation is responsible for the tariffs, classifications and billing requirements which



"Joe" Eastman—coordinator

© Harris & Ewing



practices and then let your mind wander and wonder what's likely to happen to that vast majority of small truckmen when regulatory red tape is wound around them.

THE need for truck regulation has become more debatable in view of these facts submitted by those most vitally interested — the shippers, the consumers of transportation. Until the truck entered the transportation arena in an organized way, the evidence indicates that the railroads were taking the shippers and, indirectly, the public at large for a very expensive ride, which was paid for through the nose. Along came the truck and then it was the railroads' turn to be

taken for a ride, with the shippers enthusiastically playing the part of jockeys and coming in ahead on total costs.

OF course, there have been abuses within the trucking industry, but these in themselves are not arguments in support of the railroad contention that in fairness to them all trucks ought to be placed under the same form of regulation as is inflicted upon them. Admittedly, the truck has inherent advantages which enable it to get certain types of business away from the railroads without seeming to try very hard to get it. And the truck can get the business by charging fair rates that return a profit. So, logically, whatever rate-cutting has been practised by truckmen has been at the expense of other truckmen and not at the expense of the railroads. In other words, instability within the trucking industry has resulted only in losses to the truckmen themselves—to those who charged profit-returning rates and lost the busi-

form a mathematical maze worthy of an Einstein. Compare this with the unregulated simplicity of motor truck

sive ride, which was paid for through the nose. Along came the truck and then it was the railroads' turn to be

ness, and those who slashed their rates and lost their profit.

The trucking code is designed especially to cure just such abuses and to bring about stability.

THERE are large commercial truckers who claim that the code, while protecting truckers against each other, won't be a protection against ruthless railroad competition. They hold the opinion that the problem can be solved only by uniform regulation of all forms of transportation.

Where is there any assurance that under uniform regulation the public interest will be served and the truck treated fairly according to its merits? Isn't the I.C.C. record filled with evidence that even with rigid regulation the bars can be let down and favorites can be played?

Ted Rodgers, president of the American Trucking Associations, Inc., speaking at the recent convention of the Chamber of Commerce of the United States, pointed to the fact that of 51,632 railroad applications for permission to establish rates or fares on less than the statutory 30-day notice, 44,705 were granted by the Interstate Commerce Commission. The vast majority of these applications were filed to meet bus and truck competition.

"AN analysis of some of these rates," Mr. Rodgers said, "clearly indicates that the purpose behind them is not merely 'to meet' truck rates, but to undercut truck rates. Some typical reductions show decreases ranging as high as 45 per cent.

"There seems to be no question but that these rate reductions are not made to benefit, particularly, the shipper. They are made in line with the antiquated policy of rail management of destroying truck transportation, driving it off the highway and re-establishing the rail monopoly.

"Surely that is not in the public interest."

THEN there's the bus industry's recent experience, the lingering fumes of which should kill any idea that in regulation there is relief from unfair competition. This experience is worth recounting because it appears to prove the astonishing fact that a code offers a greater guarantee of fair competition than does the regulation contained in the Interstate Commerce Act.

The Southern Railway and its affiliated lines petitioned the Commission to permit continuation of its 1½-cent-a-mile coach fares which were to expire

May 31, and which were instituted to undercut bus operators. The permission was granted despite the fact that all other railroad carriers in the Southern territory expressed themselves as favoring a 2-cent minimum coach rate as being the most desirable. Thus, although 11 railroads wanted a 2-cent fare, the lone railroad desiring a 1½-cent rate was permitted to dictate a passenger-rate policy, because it remains a fact that the other railroads will have to meet the lower rate.

The question of whether or not the rate was reasonable or would be compensatory was not considered. The rail

attitude as expressed by the Southern Railway was that passenger trains must be run by the railroads and any additional patronage can be considered compensatory.

THIS outcome would not have been possible under the National Industrial Recovery

Act or under a code of fair competition. So the bus industry, which long has sought federal regulation, has cause to pause and ponder whether regulation is the answer. The suspicion that perhaps it isn't is ably expressed by a bus association official in these words:

"As long as there is this hiatus in the control of the Commission where one railroad, even under the terms of the Interstate Commerce Act, can dictate rate policies for all railroads, it is hard to see that Commission control of the transportation industry compares at all favorably with industrial control under the National Industrial Recovery Act."

And he reaches this important conclusion:

"Certainly the complaint cannot be raised again that rail carriers are subject to strict control while motor carriers are free to make any rate to suit competitive conditions. The shoe would now seem to be on the other foot."

TRUCK operators favoring regulation may well ask themselves if the record of the Interstate Commerce Commission indicates that that body is making an intelligent approach to the problem of rate stabilization. By granting rate cuts designed "to meet motor carrier competition," the I.C.C. not only contributes to greater instability of rates within the railroad ranks, but certainly undermines trucking rates. Because the effect of these reductions is that shippers use them as a club to

chisel lower rates from the truckers. The net result, for which the I.C.C. is to be thanked, is a continual evolution downward in the structure of both rail and truck rates.

And yet Mr. Eastman speaks of "the stabilizing influence of federal regulation."

It's an ugly duckling he's trying to sell.

THE other web-footed specimen—the merchandise report dealing with the recovery of l.c.l. traffic by railroads—is being offered for sale primarily to the railroads, but there is an obvious effort to convince the truck industry that it's a good buy and worthy of the truck industry's support.

Briefly, after analyzing the truck-praising reports of shippers referred to at the beginning of this article, the Coordinator makes specific recommendations whereby the railroads can improve their l.c.l. service and thereby regain lost traffic. The chief recommendations are pooling of all rail l.c.l. traffic, store-door collection and delivery service, increased speeds, simplification of classifications, liberalized packing requirements and rail-highway coordination by contract, joint rates, lease or ownership.

BY adopting the recommendations, it is argued, the railroads would be able to offer a more economical l.c.l. service for distances in excess of 100 miles. The assumption is made that if "practices causing preventable wastes are eliminated, then highway transportation for distances over 150 miles would not be economically justified with motor vehicles operated at the average cost of their 1932 operations." (The figure used as a basis for this reasoning is 3.344 cents per ton-mile for the common carrier truck.)

A very gratuitous admission is made that even granting the potential economies, trucks will still have the edge for distances under 75 miles. And "highway transportation for distances between 100 and 150 miles generally would be justified under the conditions assumed only when the superiority in speed or the flexibility of the vehicle was worth the additional cost of providing the service."

AND no one has anything to lose, is the closing argument of the report. Why? Well, because the plan would have the effect of "returning to the rails at least 10,000,000 tons of long-haul traffic now moving by highway, and there should (note that it's *should*, not *would*) be diverted to the highway an equivalent amount of short-haul tonnage now moving by rail."

(TURN TO PAGE 37, PLEASE)



Go Get the Gas Guzzlers

Keep on the Heels of Heavy-Footed Drivers. Jewel Tea Cut Costs With Weekly Bulletin Giving Fuel Records

By D. EDMONDS

Rocky Mountain Manager,
Jewel Tea Co.

ONCE it cost our company \$25 per unit to operate a truck for one week. In this district, the average is now \$7 per unit per week, and into this is figured \$12 every four weeks for depreciation. Therefore, we are saving \$18 a week per unit, or \$540 on 30 trucks, in the city of Denver alone. If this same saving is effected throughout the rest of the country, our company is saving \$13,400 every week which heretofore had filtered away in gasoline, oil and repairs.

Those figures tell the interesting story of the attack made by us on operation costs.

Constant vigilance on the cost sheet and a unique system of educating the truck drivers have been responsible for the tremendous savings.

EACH week every manager in the Jewel Tea Co.'s organization issues a mimeographed bulletin to the drivers of his district. The bulletin is printed on a single sheet of typewriting paper. It is called the "Gasoline Gauge," and it plays an important part in keeping down operation costs to \$364 per year on each unit. Each truck runs an average of 200 miles per week.

On one side of the single-sheet bulletin appear the figures on gasoline consumption for each vehicle. These figures are arranged in six spaced columns. In the first column the identification number of each truck is given. Opposite each number there appears the

truck's mileage for the preceding week. In the next column the week finished is compared with the preceding week's mileage so each driver may see how his mileage compares with the week before. The number of gallons of gasoline used is listed in the next column and in the next the number of miles per gallon is listed for each unit. The figures in the last column show the number of miles per delivery.

These columns give each driver a chance to compare his gasoline consumption with the other individual units in the fleet.

At the bottoms of the columns are listed the totals and averages of miles traveled, gasoline consumed and miles per delivery. Thus the driver is not

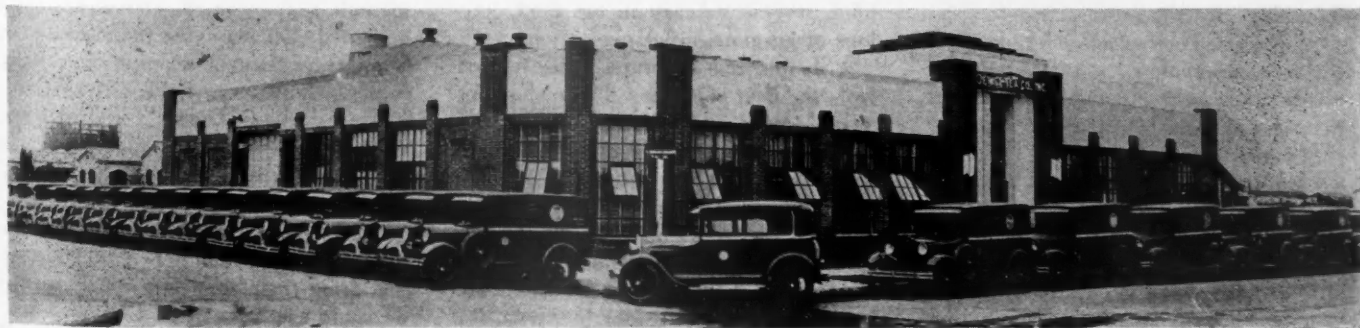
only able to check his consumption with individual units but may also compare his truck with the average for the entire fleet. This works up friendly rivalry among the drivers as well as giving them a graphic picture of the fleet operation, bringing them back into line when carelessness leads them to get too far out of the picture drawn by "Gasoline Gauge."

WE found that this comparative sheet which goes into the hands of every driver tends to make each man take a pride in his record. Thus, we use this natural human urge to keep down gasoline costs.

But the bulletin also enables the manager to reach each driver with tips on truck operation that could hardly be passed on without calling a weekly meeting. For on the reverse side of



Some Jewel Tea Vehicles



MAY, 1934

Two Specimens of the Weekly "Gas Gauge"

Gasoline Gauge, Week Ending December 9, 1933

Route	Mileage Weeks Ending 11/25	12/9	Gallons of Gas	Miles per Gallon	Miles per Delivery
01	...	145	5	29.0	.9
02	309	283	25	11.3	1.4
03	...	129	10	12.9	.7
04	118	118	10	11.8	.5
05	155	107	7	15.3	.5
06	199	205	11	18.6	1.1
07	280	No. Report	W/E 12/2		
08	101	145	17	8.5	.7
09	82	86	9	9.6	.3
10	232	230	13	17.7	1.2
11	249	212	20	10.6	1.1
12	305	227	12	18.9	1.0
13	248	310	25	12.4	1.3
14	197	Late Report	W/E 12/9		
15	203	No Report	W/E 12/9		
16	150	140	10	14.0	.6
17	251	250	12	20.8	2.2
18	204	No Report	W/E 12/2		
19	222	239	14	17.1	1.3
20	165	169	10	16.9	1.0
21	243	239	13	18.4	1.2
22	107	116	9	12.9	.6
23	174	138	18	7.7	.6
24	135	142	8	17.8	.7
25	185	184	12 1/2	14.7	.7
26	156	138	9 1/2	14.5	.8
27	159	Incorrect Report	W/E 12/9		
28	260	239	19	12.6	1.4
29	158	115	8	14.4	.8
30	100	No Gas Reported	W/E 12/9		
Total	5347	4306	307		
Average	191	179.4	12.3	14.0	.9

Gasoline Gauge, Week Ending December 16, 1933

Route	Mileage Weeks Ending 12/2	12/16	Gallons of Gas	Miles per Gallon	Miles per Delivery
01	198	250	14 3/4	16.9	1.8
02	155	185	17	10.9	.8
03	245	242	16	15.1	1.3
04	208	206	18	11.4	1.1
05	135	156	10	15.6	.7
06	172	185	11	16.8	1.0
07	...	182	17	10.7	.8
08	110	145	5	29.0	.8
09	181	175	12	14.6	.9
10	267	303	16	18.9	1.8
11	90	92	6	15.3	.5
12	178	192	11	17.5	.8
13	275	173	13	13.3	1.0
14	324	Late Report	W/E 12/9		
15	189	No Report	W/E 12/9		
16	220	251	14	17.9	1.2
17	189	227	14	16.2	1.7
18	...	70	9	7.8	.3
19	163	161	9	17.9	.9
20	157	No Report	W/E 12/16		
21	206	303	24	12.6	1.8
22	252	236	16	14.8	.9
23	152	170	11	15.5	1.8
24	239	266	16	16.6	1.3
25	264	279	13 1/2	20.7	1.0
26	180	219	12	18.3	1.1
27	183	244	13	18.8	1.5
28	283	319	22	14.5	1.7
29	114	117	6	19.5	.8
30	125	No Gas Reported	W/E 12/9		
31	...	184	19	9.7	.7
Total	5454	5532	365 1/4	15.1	1.0
Average	195	205	13.5	15.1	1.0

What's happened to our gasoline mileage? Here's what. Some of you men have failed to keep your carburetor adjustment screwed down and others have failed to report their gas purchased on the week it was bought.

Hereafter, I must insist that every man fill his gas tank on Saturday night, include all vouchers in the proper week's remittance, and a correct speedometer reading must be sent in from every route at the close of your week's business. Sincerely, D. Edmonds, Manager.

Well now, that's a little better, that 15.1 miles per gallon of gas, but come on, fellows, we must have at least 16 miles per gallon and this can and will be obtained, providing you pay just a little more attention to this part of your job.

Only one man failed to turn in his speedometer reading as required. I know you won't let this happen again, Baldwin. Remember your gas tank must be filled at close of business each Saturday night, and a correct speedometer reading sent into this office. Sincerely, D. Edmonds, Manager.



Mr. Edmonds

"Gasoline Gauge" are printed tips on "Things to Do." For example, when winter is coming on the drivers are warned about watching the choke, watching the alcohol, watching the slippery streets, how to warm up the motor, etc. New traffic ordinances that the driver may have missed are pointed out. There are also brief sentences on routing and any other information that the manager feels the driver should have. This is written up like a friendly letter and is signed by the manager.

WE have found that a reprimand to a driver printed on this bulletin in a friendly fashion will bring good results. And so a driver is publicly reminded when his operating costs are mounting.

In order to keep exact check on gasoline consumption, every tank must be filled Saturday night and vouchers for the gasoline turned in along with the speedometer reading. This gives a weekly invoice of the amount of gasoline consumed. Vouchers must also be turned in on greases and oils and on all work done on the fleet. These, going into the office every week, give the manager an instant picture of operating

costs, consequently giving him a system of control.

A route operating record is kept by entering the amounts, listed on these vouchers, on cards. There is a card for each truck in operation. The card gives a summary of operating costs, both weekly and by the year. It is divided horizontally into fifty-two spaces—one for each week in the year. Vertically, it is divided as follows: Week record, speedometer mileage in the next column, weekly mileage in the next, gallons of gasoline, miles per gallon.

A double line separates these figures from the next columns. These show, in order of their position on the card, gasoline bought, oil and grease, chassis repairs, paint and varnish and body repairs, tires and tubes, accidents, a column for depreciation listing, one for garage and miscellaneous operating costs and a final column for the total expenditure for each week.

Thus the company has set up a control system that has a number of advantages. An itemized check on expenditures will show where unnecessary leaks are occurring. By comparing one card with the rest and also by striking an average from them each vehicle's performance can be presented to the manager at a moment's notice.

SIMPLY by watching operating costs carefully through use of our operating records we have cut down costs more than 200 per cent. Because we have been able to set up a system by studying our costs, we find that depreciation on our vehicles has been considerably lowered. When a unit begins to show an excessive cost we are able to see this immediately and remedy it. Contrary to general belief, we have found that it is oftener the fault of the equipment than it is of the driver. Generally, a driver will not abuse a truck. But if he does we know this without having to wait until he has piled up costs before taking steps.

The weekly "Gasoline Gauge" educates the drivers and gets more cooperation from them than any other method we could use.

Ears to the Ground

A New Fifth Wheel

A NEW idea in fifth wheels has been made ready for the market by the Austin Trailer Equipment Co. It features "gravity cushioning." Claims include: elimination of shocks, 50 per cent clutch-load reduction on dead starts, and universal action leveling tractor and trailer. The wheel was tested on 118 units for two years in the oil fields and elsewhere. We expect complete details for the June issue.

A Dashboard Scale

If you are interested in a device which measures the weight of a motor vehicle with load and shows the weight right on the dashboard, we'll gladly put you in touch with the patent-holder's attorney.

Truck for Olds Dealers

Back in March under the heading "A Newcomer Coming," this department told you a passenger-car maker not now in the truck field was planning to enter the truck business. We can now tell you the maker referred to was Oldsmobile. But the plans have been changed. G.M.T. is going to handle the truck—a 1½-ton job in 131 and 157-in. wheelbases listing respectively at \$595 and \$625—and franchises on it are available to all Oldsmobile dealers. The model is known as T-16. G.M.T. dealers will also handle it.

A Streamlined Ford?

The Ford Rumor Bureau of this department offers what might be termed a long-shot bet. It hears that around August 15 Ford will come out with a 100 per cent stream-lined job with the present V-8 engine and booster brakes. It will, of course, be a de-luxe—probably super-de-luxe—model.

For Fractured Floors

If you have any type of floor that needs repairing or resurfacing, you'll be interested in a new material called Amo-



With this informative sign this operator makes good use of the protective "third rail"

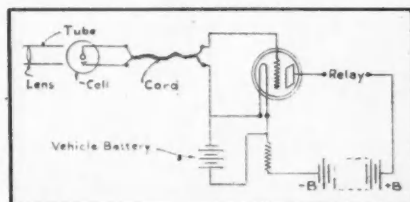


The pump at left is the first diesel fuel pump installed in an American filling station, that of The Associated Co., Los Angeles

lastic, developed by the American Oil & Disinfectant Corp. By adding to Amolastic varying quantities of sand, cement and gravel or trapped rock, you can get a surface as soft as rubber for foot traffic or hard as concrete for heavily-loaded trucks.

Gassing Eliminator

Hall-Scott is manufacturing its latest type of engine with a boss on the manifold so that the Doering Gassing Eliminator may be installed without the use of adapters.



This is the diagram of the photo-electric cell warning signal mentioned on this page in April. The Paris police department use it on its heavy duty vehicles. It is actuated only by direct light from the car behind which wishes to pass

A Two-Cycle Diesel

The Cummins Engine Co. has entered two Diesel engines in the Indianapolis Race, May 30. One is a four-cycle and the other a two-cycle job. Both are four cylindered with bore and stroke of 4 7/8 x 4 7/8 in. They will turn up around 2500 r.p.m. and develop 135 hp. for the 364-cu. in. displacement.

Converting a Generator

Are you interested in knowing how to convert a regular 6-volt D.C. generator into a 110-volt A.C. generator to furnish extra illumination where needed? If you are, communicate with E. W. Jahn, superintendent, transportation department, Consolidated Gas Electric Light & Power Co., Baltimore, Md. He revamped a Model A

Ford generator at a total cost of \$35. It handles three 50-watt lamps.

Do Truck Ads Pay?

Joseph Weiner, London advertising expert, was awarded \$80,000 for the idea of using the Railway Express Agency trucks for advertising posters. The award was made in settlement of a suit. When he submitted the idea in 1928, he estimated that the annual profit would exceed \$1,000,000.

Sealed For Life

A trend toward totally enclosed rear wheel and pinion bearings lubricated for life has been initiated by New Departure with the announcement of two such bearings—sealed for life. They are self-lubricated with own special grease, and forever proof against neglect or wrong lubrication and oozing grease to cause slipping brakes.

Book for Truckmen

The Traffic Publishing Co., Inc., New York, has published "The Motor Truck Red Book and Directory." It contains 725 pages of practical truck information and a directory of motor truck carriers. Ten dollars will bring it to you.

Overdrive Transmissions

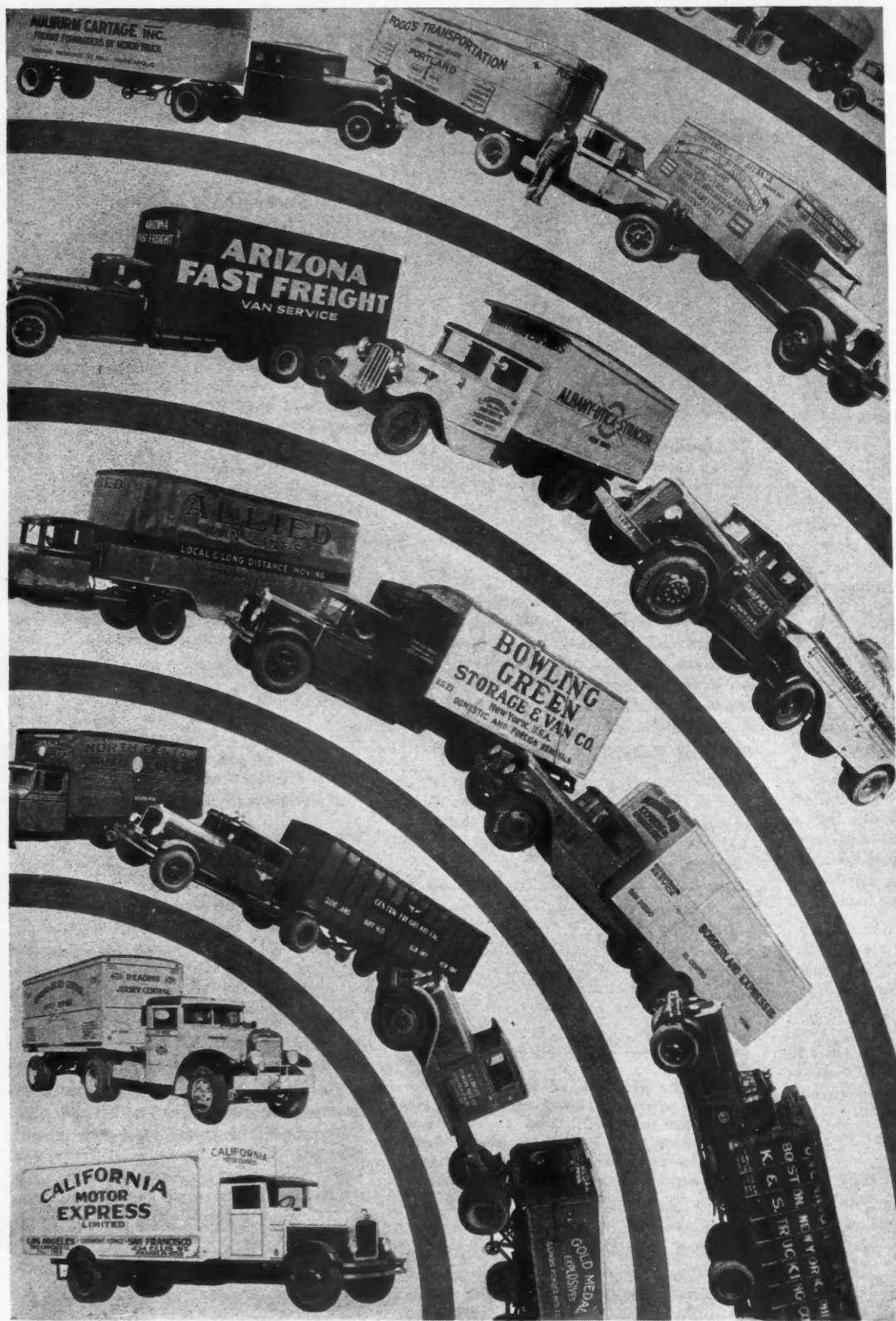
C. D. Peterson, Spicer executive engineer, makes this prediction: "Ground helical gears have reduced gear noise to such an extent that the major criticism of overdriving has been eliminated. This, together with the increased life offered by well-designed helical gears will, no doubt, bring about a wider use of overdrive transmissions."

Orchids to Seward

You really should have a copy of a promotional piece just issued by The White Co. The entire piece—cover and contents—imitates the style of *Time*, you know, *The Weekly Newsmagazine*. It's really a swell, smart and significant effort. If you want a copy ask Stanley Seward, The White Co., Cleveland, Ohio.—G.T.H.



The tilting camel-back cab is a 24-year-old idea. Here's the Hendrickson 1910 version



"As now conducted, highway transportation of merchandise is really more economical than rail for all distances."—Eastman Report.

35,000 Shippers Can't Be Wrong

THIS analysis of the recently issued merchandise report of the Federal Coordinator of Transportation bolsters the claim of motor trucks as a major power in our transportation system. The facts, the first of their kind ever to be gathered, are something for legislators to bear in mind when they are asked to restrict the services which trucks are performing better and more economically than other agencies.—Editor.



35,000 Shippers Swear

**By Trucks, Not at Them, and Declare
That Store-Door Delivery and Pick-
up Are Trucking Aces Back-to-Back**

WHEN 35,000 shippers from all over the United States say they prefer to give their more than 100 million tons of freight to motor trucks, and don't mind saying so even to the Federal government, which has "invested" millions of dollars in the railroads, you may be sure they've got good reasons for feeling as they do.

Being hard-headed business men they're not keeping their freight away from railroads because they have a petty grudge against them. They are giving it to trucks for the sound reasons that trucks will serve them better in more ways than one, and the cost, when all things are considered, will be lower.

In reports made to the Section of Transportation Service of the Federal Coordinator of Transportation by 35,468 shippers controlling the movement of 112,142,038 tons of freight, the facts give motor trucks support for their claim to consideration as a major power in this country's transportation system, and one whose services should be encouraged instead of restricted.

THESE facts, hitherto just guessed at on the basis of spotty information, can be analyzed briefly.

The 112,142,038 tons of freight moved were distributed among railroads, forwarders, railway express and motor carriers as follows:

Type of Service	Tons Moved	%
Railroad C. L.	35,522,731	32
Freight Forwarder...	12,578,131	11
Railway Express ...	3,477,235	3
Truck (1 to 50 miles)	29,525,143	26
Truck (50 to 250 miles)	24,868,400	22
Truck (over 250 miles)	6,170,398	6
All types	112,142,038	100

It should be noted that the freight handled by trucks amounted to 60,563,941 tons or 54 per cent as compared with 51,578,097 tons or 46 per cent of



combined rail L.C.L., express and forwarder traffic. Also that nearly 31,000,000 tons of the motor-transported freight were moved distances over 50 miles as compared with less than 30,000,000 tons moved 50 miles or less, indicating the popularity of the motor truck as a middle or relatively long-distance carrier as well as a short-haul carrier of merchandise traffic.

THE same shippers stated why they used motor truck freight services, and of the 10 reasons stated, store-door delivery service tied faster services for first place with store-door pick-up service in fourth place just at the shoulder of cheaper total cost. The rest of the field trailed far behind these four leaders. All of the reasons ascribed and the percentage of shippers stating each reason for using motor truck service in order of importance, are as follows:

Reasons for Using Motor Truck Service	% of Shippers
1. Faster service	65
2. Store-door delivery	65
3. Cheaper total cost	53
4. Store-door pick-up	51
5. More flexible or convenient service	43
6. Cheaper packing	21
7. Late acceptance of shipments ..	21
8. Simpler classification of rates ..	16
9. Less damage to or loss of freight	11
10. Personal friendship or interest ..	3

Many of the shippers stated several reasons for using motor transportation, as might be expected.

If the tonnage of freight traffic is considered, the reasons given for using

motor truck freight service place in somewhat different order. This time "store-door delivery" finishes in a tie with "cheaper total cost" for second place, a little distance behind the first-place-holder "faster service," with "store-door pick-up" in fifth place after "more flexible or convenient service." The relative position of all the reasons based upon the tonnage represented is as follows:

Reasons for Using Motor Truck Service	% Tonnage Represented
1. Faster service	73
2. Store-door delivery	67
3. Cheaper total cost	67
4. More flexible or convenient service	61
5. Store-door pick-up	54
6. Cheaper packing	27
7. Late acceptance of shipments	26
8. Simpler classification or rates ..	25
9. Less damage to or loss of freight	14
10. Personal interest or friendship	3

It is significant that based either upon the number of shippers or upon the volume of traffic, store-door pick-up and delivery both ran close to if not actually in foremost position, and that the responses consistently show that more than half of the shippers controlling more than half of the traffic use motor freight service because of the availability of store-door services.

Another significant fact is that store-door delivery service consistently placed ahead of its stable-mate, store-door pick-up.

IF the matter is approached from another point of view, that is, the reasons why shippers or consignees do not use motor truck freight service, the importance of store-door freight service is revealed in another light. Only 7 per cent of the shippers and consignees controlling about 5 per cent of the total traffic involved, laid their failure to use motor truck freight service to the incon-

(TURN TO PAGE 38, PLEASE)

Tips on Trailers

"With Tractor-Semi-Trailer Combinations We Can Keep Modern Easier Than With Trucks." — H. D. Horton

By J. A. DALY

"KEEP MODERN" is the keynote of the policy of the Horton Motor Lines, Inc., which operates 25 trucks, 80 tractors and 72 semi-trailers in the trucking business, with headquarters at Charlotte, N. C.

Tremendous sums of money have been expended in experiments, surveys, tests and studies involving elaborate cost accounting to satisfy H. D. Horton, head of this corporation, that he was giving the most efficient service to his customers at the least expense to them in keeping with a fair return to the transport organization. Mr. Horton is a member of the trucking industry's national code authority and a vigorous advocate of industrial self-regulation.

"It is silly to stay in any business for the open-eyed purpose of losing money," said Mr. Horton, in the course of an interview when he was at his office on a hurried trip from the code authority's headquarters at Washington.

AMID the jangling of telephone bells and a variety of urgent requests for quick decisions on numerous matters, Mr. Horton emphasized his "keep modern" idea through constant replacements, experiments and cost accounting and added:

"With tractor-semi-trailer combinations we can keep modern easier than with trucks."

He proceeded to analyze his transport problems and to give his reasons for the elimination of truck equipment in inter-city hauling. His company constantly is brought into contact with other transport problems, however, particularly in larger cities for pick-up service, which require trucks to assure the most efficient operation.

The main points to be given consideration by any highway transport operator, Mr. Horton suggested, when determining type of equipment to be used, are these:

Flexibility of operations; depreciation; safety; efficiency of loading and unloading; maintenance and service; delays due to accidents and mechanical

And a Tip on the Tips

This is an article dealing with the relatively superior value of tractor-semi-trailer combinations in inter-city and other motor transport operations.

Hidden away somewhat, however, is encouragement for the persistent salesman, because one of the largest operators of semi-trailer equipment in the United States admits he abandoned trucks in response to the demand of a hard-headed salesman-friend that he undertake an experiment involving a large purchase.

failures; length of body life; equipment trade-in values and possibilities.

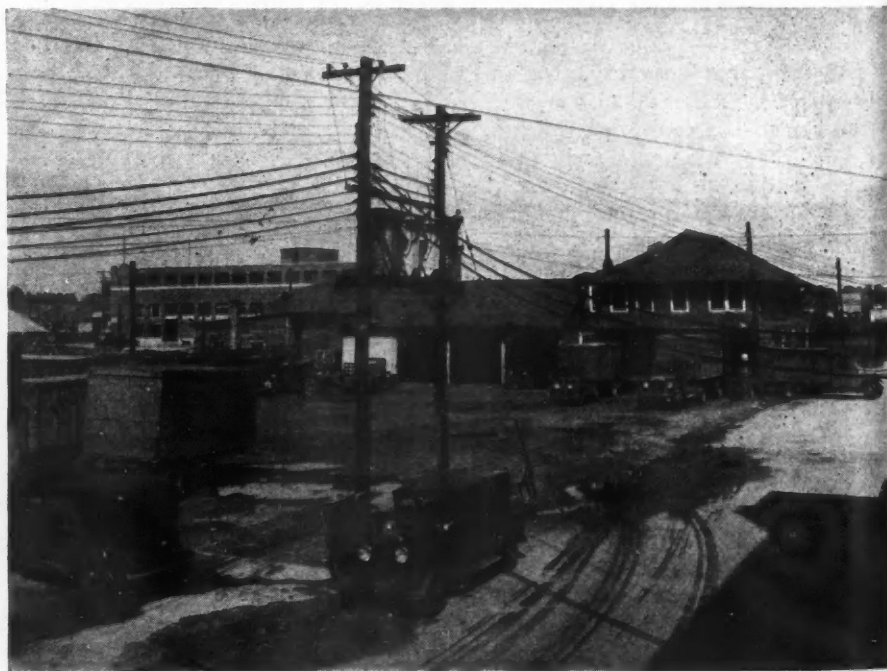
THE Horton company came into existence in September, 1931, taking over a relatively small operation which had become involved in bankruptcy.

Prior to entering this operation, Mr. Horton was a distributor of automobile tires—one of the still youthful pioneers of the Southeast's automotive industry. The bankrupt company operated only trucks, and Mr. Horton immediately set about his experiments with different types of equipment in his quest for greater efficiency as a preliminary to taking advantage of the large possibilities he envisioned for expansion.

This operation originally was over a few rather short lines extending from Charlotte to other Carolina cities. Now the Horton company operates over a network of lines extending along the Atlantic seaboard from New York down.

The tractor-semi-trailer combination is operated on long inter-city hauls.

I BOUGHT the first six of our 72 semi-trailer units because a friend who was a salesman for the trailer people insisted that I make the experiment," said Mr. Horton, presenting an aside explanation which summarized a lot of moral for the automotive selling fraternity. That was the begin-





Above is H. D. Horton, president of Horton Motor Lines, Inc., an enthusiastic booster of trailers

The map shows the principal routes covered by Horton Motor Lines. Connecting lines greatly extend the scope of service

On the opposite page is a view of the Horton terminal in Charlotte as Mr. Horton would see it looking out of his office window

ning of the end of the Horton company's operating four-wheel trailers and straight trucks of large capacity.

As a result of the experiment with the six semi-trailers, the other equipment was disposed of, except for a few straight trucks for specialized services. In New York City, Philadelphia and Baltimore, because of traffic congestion and difficulties in maneuvering semi-trailer combinations, some trucks yet are used.

In inter-city hauling, this company's extensive cost records have shown, the tractor-semi-trailer combination is much safer, more economical and more flexible than the truck, six-wheel truck or the truck-four-wheel-trailer combination.

THE decreased hazard for cargo and drivers in semi-trailer operations is emphasized by these cost records. One objection to the four-wheel trailer combination in severe accidents is the likelihood of the trailer "climbing" the motor truck, with increased damage to equipment and cargo and danger for the drivers, as compared with the semi-trailer. In no accident involving Horton equipment has the coupling of a tractor-semi-trailer combination broken.

Much less wear and tear for the power vehicle are sustained in the semi-trailer combination, particularly because the power vehicle sustains only a part of the load, as compared with the truck. At the same time experience has shown that a much more efficient distribution of load weight, compared with other types of equipment for heavy duty, is obtained by semi-trailer operation. This better distribution of load, combined with other factors, results in a much greater service from tires, compared with either the straight truck or the truck-four-wheel-trailer combination.

The Horton cost records cover not only between-city operations but also pick-up and distributing services within cities. However, the heavy-tonnage, long-distance, closely-scheduled operations between cities are the ones of chief concern to the Horton cost accountants. But economies in operations of the semi-trailers are not confined to actual movement between terminals.

THE flexibility of the tractor-semi-trailer combination also is emphasized by the Horton organization especially when the trailer is being loaded



Horton trucks being loaded at the Carolinas terminal of the A. & P. in Charlotte. Trucks in this phase of Horton service cover the Carolinas with high-speed delivery service from warehouse to retail stores

or when the tractor is being serviced or repaired. Furthermore, one or the other of the two-unit combinations may become involved in mechanical difficulties on the highway. From an operating base another unit can be sent out. When the tractor is down, repairs may be made locally while the trailer is hooked to the relief tractor and the unit moves on with minimized delay.

Seldom in this company's operations does it become necessary to transfer a trailer load on the highway. When that is necessary, the tractor bringing the relief trailer moves the damaged trailer back to the base.

WHILE part of the merit of the tractor-semi-trailer combination is in time-saving, a matter of great importance in the Horton operations, it also works for economy in many other respects, such as in the use of relief equipment and loss of operating time of one or the other parts of the unit, as compared with trucks.

In respect to truck-four-wheel-trailer combinations, breakdown for the motor vehicle necessitates truck load transfer to avoid delays even though another and empty power vehicle should hasten away with the loaded four-wheel trailer. The records show that these combinations in cases of breakdown require a much greater use of reserve equipment as well as of manpower.

Of course, equal importance probably would not be attached to some of these factors by operators who are not required to maintain the relatively high-speed schedules of the Horton lines. The basic policy of the Horton organization is not only to maintain these schedules but also to keep the equipment at the highest possible rate of revenue-producing service. That latter consideration has a vital bearing on the problem of keeping down the ton-mile cost and other factors of fixed overhead cost.

ONE of the objections experienced has raised to the four-wheel-trailer combination is that the coupling is

far less dependable than that of the tractor-semi-trailer unit. Also, the former combination is more difficult to bring to a stop quickly, it being found by experience that the semi-trailer unit can be stopped about as quickly as a passenger car.

Immediate economies alone do not limit the concern of the Horton company's cost accountants. The long-pull economies are given equally as careful consideration. This company's experience with the semi-trailers from the long-term viewpoint has been very pleasing. Different rates of depreciation necessarily must be charged for motor and for chassis-body combination. The straight truck must be depreciated as a whole, unless the possibility of installing a new motor is considered. Motor vibration, however, causes in this type of unit a more rapid depreciation of the body. That and other factors tend to make it inadvisable to install new motors in heavy-duty equipment of this type.

Horton Lines

The main long-distance hauls of the Horton Motor Lines, Inc., and their scheduled running time, are:

North Carolina points to Richmond, or reverse, 8 hours.

North Carolina to Baltimore, 15 hours.

North Carolina to Philadelphia, 20 hours.

North Carolina to New York, 24 hours.

North Carolina to Wilkes-Barre and Scranton, 22 hours.

North Carolina to Cumberland, Md., 22 hours.

Mr. Horton's investigations have shown that his deliveries are approximately the same, in elapsed time for the runs, as railway express.

The Horton lines transported in 1933 an estimated total of 85,000 tons of payload.

THE constant improvement of motor units of tractor-semi-trailer combinations makes advisable rather frequent replacement but the trailer equipment need not be depreciated so rapidly nor replaced so frequently. The body of a truck having a well-built body will outlast the motor, and, irrespective of motor improvements, the trailer of a tractor-semi-trailer combination has a much longer life expectancy than the motor vehicle. Also, when a truck chassis is traded, a good body, not of the type desired by the buyer, must be junked.

FROM all the angles of the depreciation problem, the tractor-semi-trailer unit has proved most economical for the Horton operations. In fact the company's experience is that the favorable differential in depreciation totals a large amount annually. One of the important contributing factors to this result is the fact that motor-originating vibration does not reach the trailer body or the pay load, giving the trailer body a life substantially longer than is experienced by truck bodies.

IN some operations, particularly slow-moving, non-scheduled hauls, some of the objections the Horton company has found to four-wheel trailers may not apply. In some instances state laws may operate against tractor-semi-trailer units. Such units, however, have very little to offer for city cartage and numerous other operations, particularly those operations involving dense traffic, short hauls and light loads. Because of the diversity of the products transported by the Horton company and the wide variety of traffic and highway conditions encountered, several sizes of tractor-semi-trailer units are operated by this company, the capacities ranging up to the legal limit.

The company's conclusions relative to the superiority of this unit for the operations involved represent an average of the experience under all the conditions.

'Farming' Crops Costs

Fleet Head Says It Pays to Give Repairs to Specialists. Has Ideas on Tire Care, Reclaiming and Governors

By C. H. MEYERS

Transportation Manager,
Archer's Laundry, Baltimore, Md.

SUMMING it all up, the economical operation of your fleet depends upon watching all maintenance costs closely and keeping them down to an absolute minimum.

We do not operate our own shop. We believe it cheaper to farm out repairs. We know that to make our own repairs would necessitate a big outlay for tools and equipment and that we would always be faced with the problem of securing the right man to operate the shop. As it is, we are able to consult specialists in their respective lines.

Our figures also seem to bear out our contention. For instance, a five-week period cost us \$97.95 for labor. If we had a one-man shop we would probably pay the man \$30 a week or \$150 for the period. The following month it cost us \$45.15 for labor or less than one-half of what the mechanic's wages would have been.

We furnish all parts used, thereby saving all discounts given. These figures prove to us conclusively that it does not pay to operate your own shop for a fleet of 23 trucks. You might say, "But you would get better work in your own shop." But would you? I doubt it. If the repair man you patronize does not give you a good job, and does not stand back of his work he knows that he will lose your business, which is necessary for his welfare.

THROUGH careful study and experiment we are constantly lowering the cost of operation by reducing maintenance costs. In 1932, for ex-



Farming Knocks Off Overhead

ample, Truck No. 11 cost .552 per mile to operate; in 1933 only .331; Truck No. 13 cost .222 in 1932 and .215 in 1933; Truck No. 17 cost .481 in 1932 and .369 in 1933; Truck No. 34 cost .407 in 1932 and .363 in 1933; Truck No. 38 cost .496 in 1932 and .346 in 1933.

The above figures included maintenance, tires, oil, gas and garaging. The garage cost was \$123.41 per unit. The only things not included were depreciation and insurance.

AT one time when a tire wore out, we merely replaced it with a new one and did not know how many miles it delivered. Costs then did not mean half as much as they do today. We can no longer afford hit and miss methods. That is why we set up various forms in order to know what the exact mileage is of each tire.

Our tire record enables us to make an analysis and study how to reduce costs, whether retreading pays, what type of tire gives the best service, what truck is hard on tires and why, ultimately eliminating that type of truck or the driver. But unless accurate records are kept on tire performance you do not know what you are getting for your money.

THE fleet manager has to watch the misalignment of wheels, dragging brakes, and proper inflation, and when you take care of all these various things that go into tire mileage you are adding miles to their life. In 1933, for example, it cost us .0295 per mile to operate four tires.

When a tire is repaired it is remounted on the same wheel and the spare tire is returned to its rack as the spare tires are old tires, with little mileage left in them. The following

(TURN TO PAGE 50, PLEASE)



Plug Up Your Troubles . . .

**At the Old Spark Plug and
Get Miles, Miles, Miles of
Better Engine Performance**

WHEN a detective solves a murder mystery he does it by following up clues. If it's a real mystery the toughest part of his job is digging up the clues.

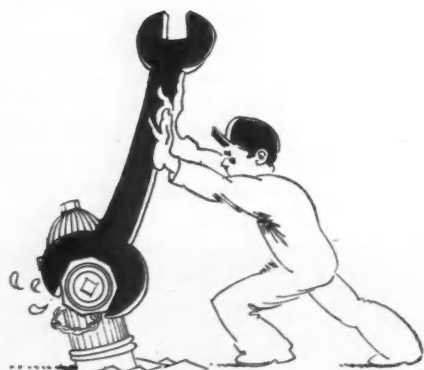
When a mechanic has an engine mystery to solve, he also has got to look for clues. In his case there is a set of ready-made clues which should always be looked into before doing anything else.

These clues are the spark plugs.

They will show him whether the mystery can be solved without going any further, or else they will lead him to one of the many other causes of engine troubles.

IF the engine is hard to start, misses at low or idling speeds, or loses power under load, by all means the first place to look for the cause is in the spark plugs. Their condition will tell the mechanic what to do to the plugs and to other parts of the engine mechanism.

Here is a simple and easily-followed table of plug conditions which are gen-



Stops Leaks at Plugs

erally met with when the engine's performance begins going to the bows, together with the things that should be done to the plugs and also what else to look for and do.



When sleuthing for engine troubles such as **Hard Starting, Missing at Low or Idling Speeds and Power Loss Under Load**, the trail should lead first to the spark plugs

GAP too wide or too narrow. Electrodes badly worn or burned away.

FIRST—Set gap to manufacturer's recommendation. If plug has been in service for 10,000 miles or more, replace plug. If the electrodes were badly burned in only 5000 or 6000 miles, replace with cooler plug.

ALSO—Check ignition system and battery.

Check carburetor adjustment.

Check timing.

Set distributor points to manufacturer's recommendation.

INSULATOR broke non upper end. **FIRST**—Installing a new plug is the only remedy. Such breakage can only be caused through carelessness.

ALSO—Use care in removing and installing plugs.

Use a spark plug socket wrench of the proper size, and use it carefully.

INSULATOR cracked or broken on lower end.

FIRST—Installing a new plug is the only remedy. Get correct type. If broken plug is correct type, engine is probably being operated under hotter than normal conditions, and "cooler" plug should be installed.

ALSO—This trouble may be caused by careless work in re-gapping plugs. Make all gapping adjustments by bending the side electrode only.

UPPER part of insulator blackened just above the shell, indicating "blow-by." Lower part of plug not sooty.

FIRST—Type of plug used is much too hot—install a cooler type.

INSULATOR blistered or "glassy." Insulator shows deposits of reddish or brownish color.

FIRST—Clean plugs; reinstall plugs and test. If condition is habitual, it indicates "too hot" operation; change to cooler type of plug.

ALSO—Check timing.

Check carburetor adjustment.

Check for leaks in intake manifold and in cooling system.

Fuel used may be unsuitable.

INSULATOR covered with dry black soot.

FIRST—Check for correct type. If



Dry and Clean



Plug Too Hot

correct type, clean plug. Set gap to manufacturer's recommendation. Reinstall and test plug. If sooting is habitual, replace with hotter type.

ALSO—Check for too rich carburetor adjustment.

Set distributor points to manufacturer's recommendation.

Use choke sparingly; see that it isn't stuck.

INSULATOR caked with oily carbon or soot.

FIRST—Check for correct type. Clean plug. Set gap to manufacturer's recommendation. Reinstall plug and test. If condition is habitual or plug of incorrect type, replace with hotter plug.

ALSO—Check for too rich carburetor adjustment.

Set distributor points to manufacturer's recommendation.



Change Plugs Carefully

Use choke sparingly; see that it isn't stuck.

Check for too much oil in case.

Check ignition system and battery. Check timing.

Check for leaky or stuck valves.

Check for worn or loose pistons and piston rings.

PLUG oily, but not sooty or carbonized—spark gap filled with oil.

FIRST—Dry plug and clean. Set gap to manufacturer's recommendation. Examine plug carefully for cracked insulator. Reinstall plug and test. If plug does not test O.K., the trouble is elsewhere.

ALSO—Check ignition system and battery.

Set distributor gap to manufacturer's recommendation.

Check for too rich mixture. Check timing.

Check for excessive use of choke. Check choke for sticking.

Check for too much oil in case.

Check for loose pistons or rings.

Check for leaky or stuck valves.

Butane: Bunk or Berries?

It's the Berries, Says West Coast Expert, Who Sugars His Views With Facts and Butters Them With 'Buts'



Not Bunk . . .

I BELIEVE that the first really satisfactory use of butane on a commercial motor vehicle took place in August, 1930, when we fitted our butane carburetor to a double decker bus operated by the Los Angeles Railway Co. The tests made enabled us to get together figures on fuel consumption and power, from which were drawn some useful conclusions.

The figures disclosed a remarkable increase of power, due to the use of butane fuel, but the fact that the biggest increases were at high speeds showed that a large percentage of the power increase was due, not to any special virtue of the butane, but to poor gasoline carburetion. The venturi of the gasoline carburetor was far too small for high engine speeds, which reduced the volumetric efficiency of the engine, but even at low speeds, the power increase was very noticeable.

A POINT of considerable interest was that the increase of power on butane was least at speeds of 20 and 25 m.p.h.—say 1000 to 1300 r.p.m. This seems to be a characteristic of the fuel; it pulls exceptionally well at very slow speeds and also at high speeds.

It would be reasonable to say, for any engine, that the power with butane and gasoline would be the same if the compression were not raised, and would be

By G. L. HOLZAPFEL

President, Holzapfel Instrument Co.,
Los Angeles, Cal.

from 15 per cent to 25 per cent more if the compression were raised from, say, $4\frac{3}{4}$ to 1 to $6\frac{3}{4}$ to 1. This is our usual practice. Sometimes, in the case of extra good manifolding and gasoline carburetion, there is actually less power developed than with gasoline, whether on high or low compression. Of course, if the compression is raised to a point higher than is admissible with gasoline, the power is considerably greater with butane than it can possibly be with any gasoline that is not especially doped.

IT very often happens that an operator, after raising his engine compression and using Ethyl gasoline, when

Here's the Sugar Powdered Fine

Butane is superior in power at very low and high speeds; in fuel economy on high compression and particularly under full-throttle operation; in lower oil consumption and lower maintenance costs.



Mr. Holzapfel



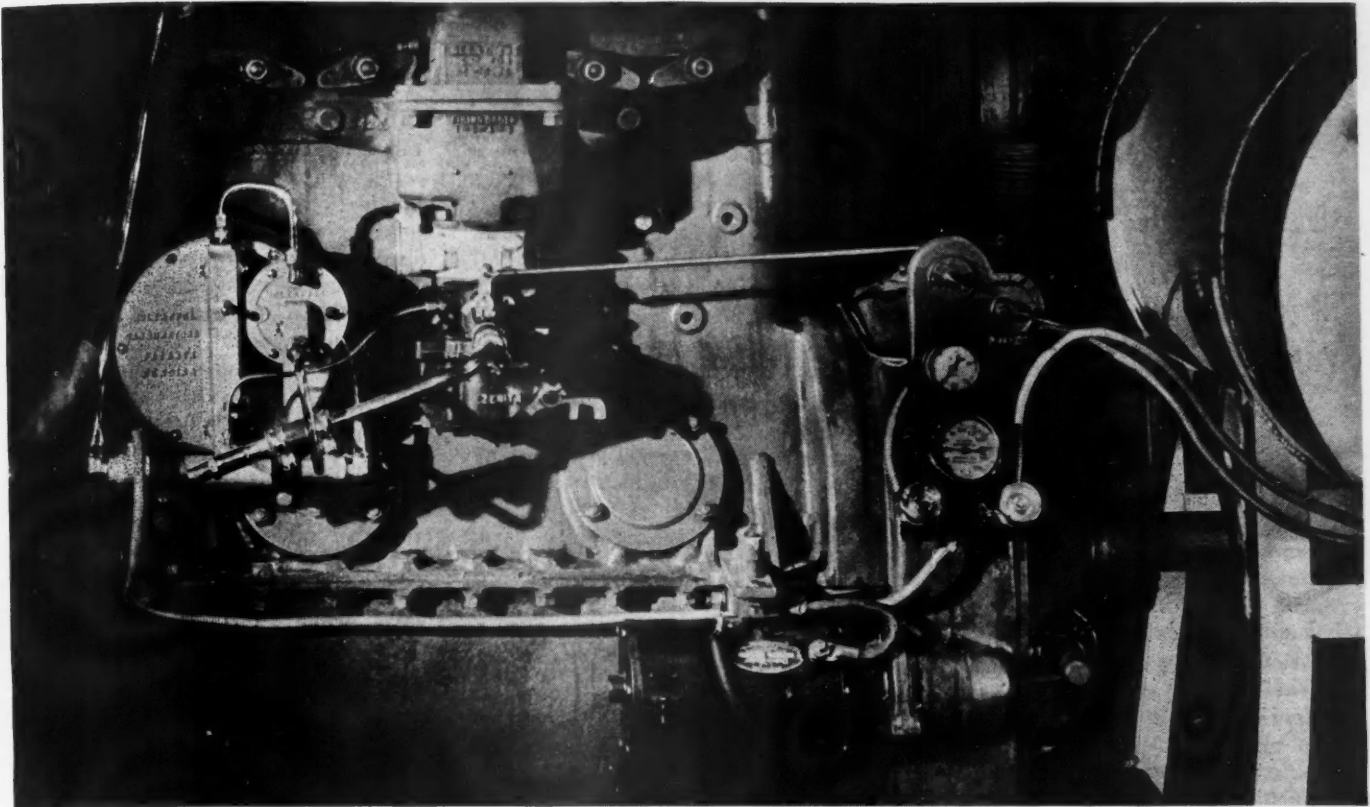
. . . Berries!

not operating on butane, complains that he gets no more power than he does with gasoline. He loses sight of the fact that the comparison should be made between first grade gasoline with low compression and butane with high compression. In such a comparison butane nearly always shows a considerable increase of power and that, after all, is the only fair way to compare the two fuels.

Owing to the high compression that can be employed with butane, the potential power of this fuel is considerably greater than that of any gasoline available and it is worthwhile for operators to take advantage of this.

LET us now go into the question of fuel consumption.

Butane shows its best comparative economy on high compressions, so that on partial throttle openings it is not working to its best advantage. On the other hand, the distribution troubles of gasoline are least noticeable on partial throttle openings for then the vaporization of gasoline is at its maximum because of the high manifold vacuum. They are most noticeable on full load when the vacuum is least and distribution very bad. Then butane is at its best. Thus, on vehicles running largely on part throttle opening, such as pleasure cars, etc., butane does not give very good fuel consumption economy and usually disappoints the user.



A Butane Carburetor Attached to a Standard Gasoline Engine

BEST results have been obtained with trucks on long runs with heavy loads—over the mountains, where a great deal of the distance is covered on full throttle. A bus runs on full load for less time than a truck; therefore, the fuel consumption advantages of butane are not so great as they would be on a truck. However, the question of comparative consumption of the two fuels is so wrapped up in the questions of engine compression, load factor, manifold design, carburetor adjustment and numerous other factors, that it is almost impossible to predict, with any degree of accuracy, what the economical result of the change-over will be. On the whole, it is best to assume that the miles per gallon on butane will be

the same as they were on gasoline; any advantage gained will then be a pleasant addition to those advantages which accrue from the use of a cheaper fuel, less wear and tear and lower bills for lubricating oil, spark plugs, etc.

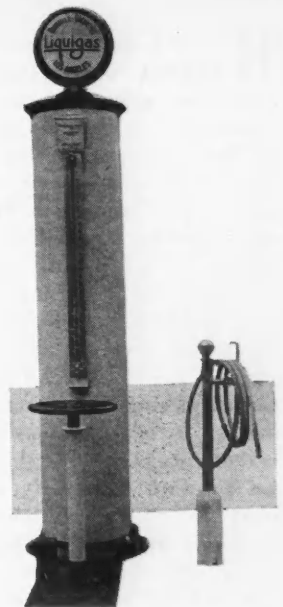
HOWEVER, it is possible to predict just this much:

Pleasure cars will run from 10 per cent to 25 per cent less distance, gallon per gallon, on butane than on gas.

Buses will run about the same distance (the more stops the better, for then there will be more full throttle operation).

Trucks in light service will run about the same as buses.

Trucks in heavy service will show



First Butane Pump

Above is the first butane-dispensing pump in the country. It is installed in the service station of Park-Hill-Wade Co., Los Angeles, Cal.

A strong, heavy underground tank holds 10,000 gal. of butane. Water, being heavier, is used to force the butane out, at 150 lb. pressure.

The wheel operates a valve on the butane tank and the truck is serviced by means of the hose at right.



Butane Has Superior Power and Performance



Less Oil Is Consumed

substantially increased economy over gasoline.

Small, over-loaded engines show better butane economy than large, lightly-loaded engines.

In short, butane is the most economical fuel for hard service and for this reason we advocate its use chiefly on trucks, tractors, shovels, etc., although the much smoother operation makes its use very desirable on pleasure vehicles.

BUTANE shows very substantial advantages over gasoline in many directions other than power and fuel economy. Perhaps the most important of these is due to the absence of dilution. Not only does this factor make a very great reduction in the amount of lubricating oil consumed, but the oil retains its lubricating qualities under all conditions. Perhaps the greatest wear in internal combustion engines occurs when they are started from cold and the gasoline in the initial charges washes most of the oil from the cylinder walls. It takes a considerable number of revolutions for the oil pump to get to work sufficiently to splash up more oil on the cylinder walls, and until this happens, the piston is badly under-lubricated.

A number of tests have shown that most of the wear takes place under these conditions and our experience is that wear on moving parts is reduced at least to one-half when butane is used.

One test we made proved that dilution occurs even when the engine has attained its full working temperature and is thus always present in the engine under all conditions. *Therefore*, when butane fuel is used, a lighter grade of lubricant may be used and much better all-round lubrication obtained.

IN regard to valves and spark plugs, butane shows itself to be the kindest fuel available, increasing by many times their useful service. Carbon deposits

are also very much reduced, but there is always some deposit, due chiefly to combustion of the lubricating oil. However, there is so little of it that it is safe to say that there should never be any need to remove the cylinder head until reboring or new pistons are necessary. As wear is so much reduced, this means that, with good care, an engine should never need to be overhauled during its lifetime, for that disease known as obsolescence will probably intervene before any of the curable diseases can get a hold. An efficient air cleaner will aid considerably to the possibilities of this desirable attainment.

AND now let us deal with the all important question of supply. As butane requires pressure tanks for its storage and special tank trucks and cars for its distribution, it is necessary for the user to deal with it in larger quantities than is the case with gasoline. Thus the sale of this fuel is at present chiefly restricted to large users who can afford to buy it in from 3000 to 10,000 gal. lots. In many ways this has proved an advantage, for had the question of supply been more easily solved there would have been so great a rush for carburetors that the manufacturers would have been quite unable to cope with the demand. As it is, this business is growing at a reasonable rate and the supply is quite in keeping with the demand.

LASTLY, let us look at the capital cost and determine just where butane may be used with the best results. Generally speaking, any engine, whether stationary, tractor, truck or bus, that uses plenty of fuel, will pay for itself in a very short time. In many cases the \$100 to \$200 cost of equipping a vehicle is paid by fuel savings in a month or less, while the cost of the storage tanks is usually paid for in from 2 to 12 months.

Operators of one or two trucks are unfortunately not so favorably situated as operators of big fleets, for the ratio of the price of storage to the saving in fuel cost is proportionately much greater. However, when the change-over has been paid for, the advantages are very great, for butane is unquestionably a very much better fuel than the best gasoline obtainable.

IT is really very surprising to some people that the price of butane is at present so low. The explanation lies, of course, in the law of supply

and demand. The price of $3\frac{1}{2}$ cents per gallon at the refinery is dictated chiefly by the cost of segregating and handling what has hitherto been a practically worthless by-product. When the price was recently raised, somewhat arbitrarily, to 6 cents per gallon the manufacturers could not sustain it and probably no business was ever done at that price. It quickly fell again and butane is now selling for $4\frac{1}{2}$ cents per gallon. It is probable butane will remain at $4\frac{1}{2}$ cents per gallon until there is sufficient demand to warrant an increase of price. Then the price will find its market level. By that time all those enterprising operators who have taken advantage of the present situation will have paid for their installations and will be well rewarded in addition. Should the price go up to the level of the best gasoline, their operating costs will still be substantially below those of the gasoline user.

LET me now mention one or two points to prove that butane is fundamentally a fuel of great importance. Our early experiments immediately proved to us that 102,000 heat units of butane would take a vehicle just as far as 125,000 heat units of gasoline, so that we at once realized that no less than 23,000 heat units or more than 18 per cent of the gasoline was going straight through the engine unburned or partially burned. In many cases, indeed, the wastage amounted to 30 per cent to 40 per cent, particularly on engines running on heavy loads. Now it is economically unsound that there should be so great a drain on our natural resources if it can be prevented and the development of butane fuel is of great importance to our national economy.

Personally, we look forward with assurance to the time when liquefied gas, or something akin to it, will be the national fuel.



A Most Economical Fuel

Something for Nothing

**Free Publications Which Are Yours
for the Asking. Use the Order Blank**

22. How to Service Bearings

THIS 52-page book, according to its preface, "is offered to the automotive service man in the spirit suggested by Theodore Roosevelt when he said that every man should contribute something to the industry or pursuit from which he derives his livelihood."

The book deals with the important functions performed in an engine by bearings, why they are designed and produced as they are, and how to service them. It is the work of Lowell C. Blomstrom, chief engineer of Federal-Mogul Corp.

23. Cleaning Handbook

CLEANING in the sense in which it is used here covers a multitude of dirt. It covers the cleaning of soiled hands, of clogged radiators, of all types of floors, of parts and the stripping of paint, enamel and japan from metals.

The Magnus Chemical Co. presents this valuable information in a 32-page, well-illustrated book. It is a practical guide to the modern methods of cleaning in all types of repair shops and dealer show rooms and garages.

24. Top Cylinder Lubrication

THIS booklet prepared by the Emerol Mfg. Co. deals with the interesting subject of top cylinder lubrication. It analyzes the lubrication requirements of an engine, describes what takes place within the cylinders of an engine and suggests solutions to the problems discussed.

This 20-page book will provide good reading for fleet men and service men interested in the problems of engine lubrication.

25. Why Expand Pistons—and How

HERE is a booklet that goes into the question of why pistons slap and why engines become oil hogs, and then offers the cure for both alloy and cast-iron pistons. It argues the case of the piston expander, and is offered by Liberty Accessories Corp.

26. Belt and Hose Catalog

THE B. F. Goodrich Rubber Co. has a large book of 68 pages which it calls its 1934 fan belt and radiator hose cata-

log. Thirty-two pages are given over to fan belt and radiator hose specifications for passenger cars, trucks, buses and tractors listed alphabetically and covering practically every piece of automotive equipment now in use. Twenty pages are devoted to tables showing the vehicles which can be serviced by each fan belt.

Of special interest are three pages giving detailed instructions for installing fan belts, with 12 illustrations.

27. Truck Battery Data Book

GOODRICH also has issued an 8-page pamphlet, giving specifications and data for bus and truck service batteries.

28. World Bestos Catalog

WORLD Bestos Corp. has prepared its 1934 catalog of 32 full pages which it refers to as the most complete ever issued in the brake lining industry by any manufacturer. It is a most complete listing of this maker's products.

29. Valve and Guide Catalog

THIS valve and valve guide catalog is the 1934 edition prepared by Toledo Steel Products Co.. It contains an alphabetical list of vehicles with the proper Toledo valve and valve guide numbers for each make and model. In addition it contains a master numerical chart, a numerical dimension chart and a progressive dimension chart for both valves and guides.

30. Tin Plating Facts

HERE is a pamphlet, issued by Circo Products Co., that describes the advantages of tin-plated pistons and the tin-plating piston service which is now available through authorized jobbers. The folder tells how it is possible to fit cast-iron tin-plated pistons to as low as .001 clearance, and how the engine can be operated at practically full speed immediately after reconditioning.

31. Brake Lining Data Book

THE 1934 edition of the Brake Lining Manufacturers' Association Automotive Data Book covering asbestos brake linings and clutch facings will be distributed about June 1. You can place your order for one now. The data book shows the number and size of brake linings and clutch facings for all car and truck models, including a majority of the 1934 models. It will also include a numerical list.

32. Legal Restrictions Book

A 54-page booklet entitled "Truck and Trailer Size and Weight Restrictions" has been prepared after exhaustive research and exhausting work (we speak from experience) by the Four Wheel Drive Auto Co. This book will be sent gratis to any truck operator. Each state is given a separate page in this restriction tabulation.

ORDER BLANK

*Please send me the following
Free Books*

(Check numbers wanted)

- ☐ 22. How to Service Bearings
- ☐ 23. Cleaning Handbook
- ☐ 24. Top Cylinder Lubrication
- ☐ 25. Why Expand Pistons—and How
- ☐ 26. Belt and Hose Catalog
- ☐ 27. Truck Battery Data Book
- ☐ 28. World Bestos Catalog
- ☐ 29. Valve and Guide Catalog
- ☐ 30. Tin Plating Facts
- ☐ 31. Brake Lining Data Book
- ☐ 32. Legal Restrictions Book

Name

Title

Firm Name

Address

City and State

(Mail to Commercial Car Journal, Philadelphia, Pa.)

MAY, 1934

Driving According to Hoyle

**A Book of Rules for Drivers of
Automotive Vehicles to Promote
Safety and Economical Operation**

By E. J. GRAHAM

*Superintendent of Transportation
Public Service Co. of Colorado*

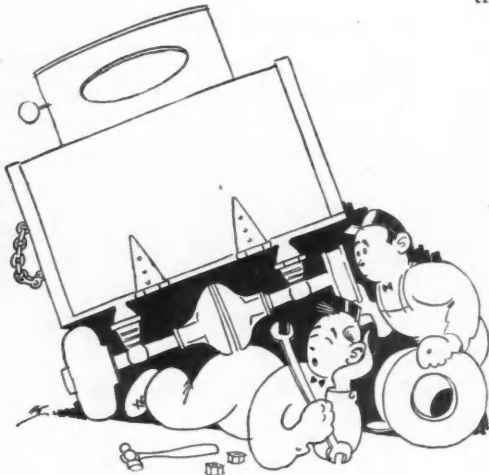
Foreword

THE driver should at once familiarize himself with the motor vehicle laws of his state and all local traffic ordinances. Remember that *ignorance of the law is no excuse.*

It is the duty of all persons responsible for the operation of vehicles to assure themselves that drivers are conversant with the law and with these rules before they are assigned to a ve-

words, actions, and manners, as those of the Company. "A man is judged by the company he keeps," *A Company is judged by the men it keeps.*

3. The driver must never forget that *the law gives right-of-way to pedestrians.* To disregard this right leads to hostile feelings towards all drivers and especially towards the owner of the offending vehicle.



Don't depend entirely on jacks



Mr. Graham

hicle, and to insist all drivers be instructed in regard to all changes or additions to current laws and regulations.

General

1. The Company desires to bring to the attention of all employees driving motor vehicles the need of caution and common sense at all times and under all conditions.

2. The driver must remember that he is the Company's representative, and that the Public will consider his

4. The driver must realize that the following acts *will not be tolerated.*

- Use of intoxicants while on duty.
- Racing with any other vehicle.
- Horseplay while on duty.
- Neglect of duty.
- Disregard of orders.
- Violations of any law or ordinance.

5. The driver shall not permit any person to drive or ride in the vehicle assigned to him unless so directed by his superior. Any unauthorized passenger may, in case of injury,

make the driver or owner of the vehicle personally liable for such injury.

6. The driver must see that all passengers are properly seated before proceeding, and he shall not permit riding on running boards, rear tail boards, or boarding or alighting from the vehicle while in motion. This rule does not, however, apply to mechanics in the line of duty. All doors should be free to open from the inside of vehicle even when locked. Locks or latches inoperative from inside the vehicle are forbidden.

Drivers shall not permit more than one other person to occupy the driver's seat at any one time. Unnecessary conversation while the vehicle is in motion is absolutely forbidden.

7. Each driver is required to familiarize himself with conditions in the territory in which he usually drives, so that the routes involving the least congestion and delays can be used. Play streets, those passing schools, playgrounds or otherwise congested, should be avoided.

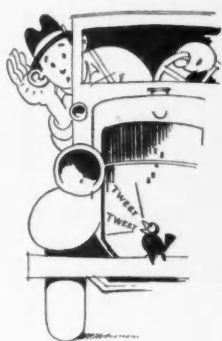
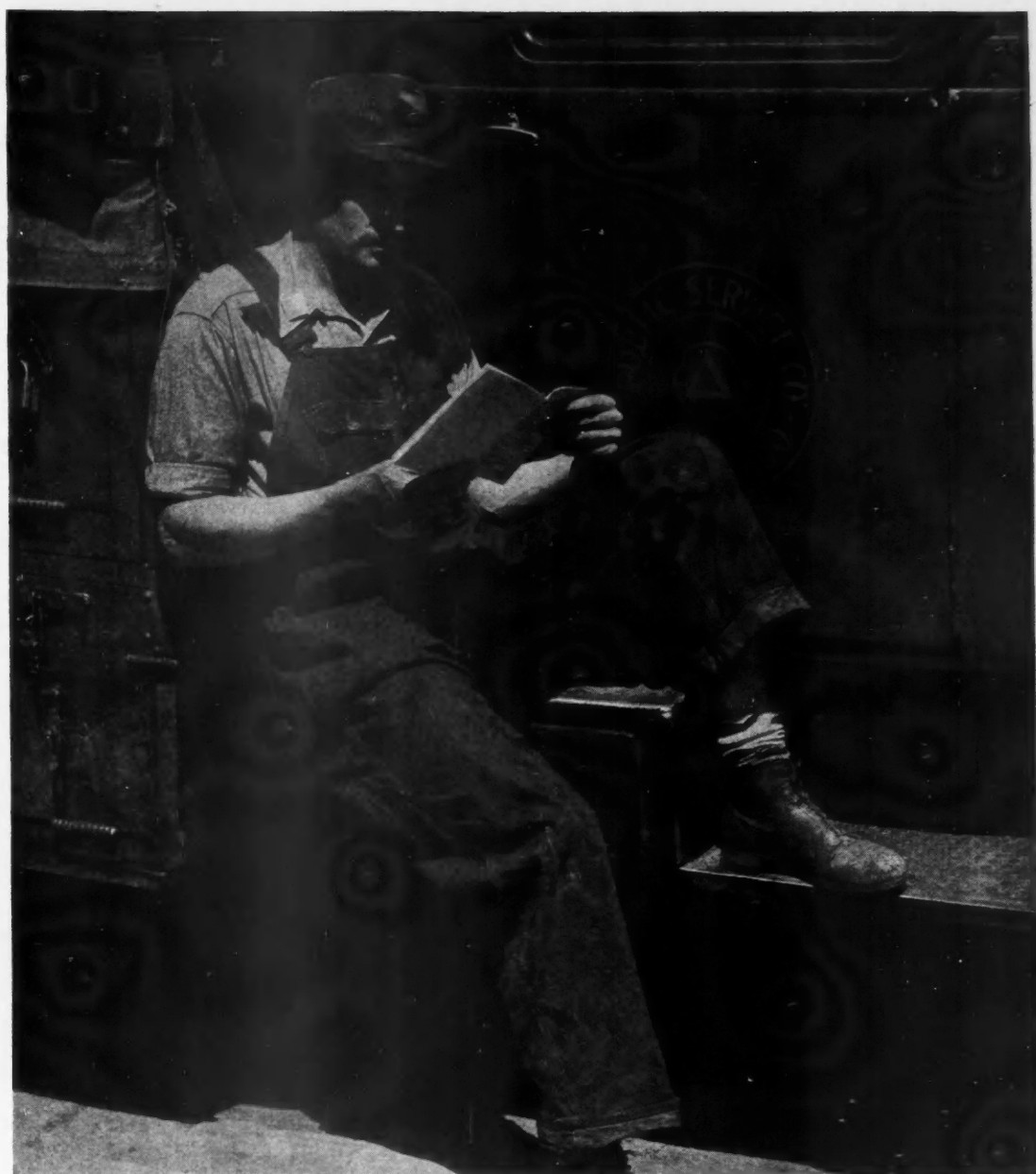
8. Drivers will be held responsible for the proper care of tools and all other equipment furnished to the vehicle. Before leaving the garage, the driver should check his equipment. Tools and other equipment must be kept clean and neatly stored in the proper place. Loss or breakage of any article or the use of any spare equipment (as lamps, tires, etc.) must be reported at once.

Employees are expected to administer first-aid, to use the first-aid material provided, and in case of emergency to use the vehicle itself to aid injured persons or summon help.

Operation

9. Before leaving the garage, the driver must inspect his vehicle and assure himself that all the following details have been properly cared for:

- (a) Ample supply of gasoline, oil and water.



Get accustomed to operating sounds

(b) Tires in good condition, and, if pneumatic, properly inflated.

(c) Brakes, lights, and control mechanism in good condition.

A brake test should be made before leaving the garage, or if that is impossible, within the first half block after leaving the garage. The brake test card must be in the car at all times.

If brakes are not functioning properly or there is any indication of an unsafe condition, a report must be made immediately to the Superintendent of Transportation, the Local Manager or other person having authority to order immediate repair. The vehicle must not be used without special authority as above.

(d) Windshield and license plates must be clean and the car must be generally clean and tidy.

(e) Chains must be used on orders from the garage authorities and at other



In accidents, get correct names

Filling a Need

The operating and safety rules given here can be applied successfully in fleets large and small.

They are published because so few fleets have set down rules for the guidance of their drivers. They fill the need. They are brief and to the point.

times when necessary in the opinion of the driver.

10. Drivers should accustom themselves to the operating sounds of their vehicle, and should report any unusual condition on the regular report sheet before going off duty. If noted while on the job, serious conditions of this nature should be reported at once by telephone. Drivers must not attempt to make repairs except to change tires, or make minor adjustments with which they are familiar.

11. A daily report sheet must always be filled out and signed when returning a vehicle to the garage, either noting as "O.K." or stating the conditions requiring attention.

12. The driver must thoroughly familiarize himself with the control of any vehicle before attempting to drive it. (NEXT PAGE, PLEASE)

13. A driver who returns a vehicle to the garage in an unsafe condition, or who finds a vehicle unsafe to operate, shall not leave the vehicle for any purpose until "out of order," "do not move" or similar sign has been attached to the steering wheel; or otherwise placed in a manner to call attention before the vehicle is operated.

14. If starting equipment is out of order, or if vehicle has no self-starter, before cranking motor the driver must make sure that:

- (a) Spark is fully retarded.
- (b) Gear shift is in neutral.
- (c) Emergency brake is on.

He should then grasp the crank with thumb alongside first finger so that it does not engage crank handle, and so that handle can pull free from the hand in case of back-fire. The crank must always be pulled up. It should never be forced down or any attempt made to spin the motor.

15. A jack must not be depended on to support a vehicle which must be worked on from below. This is especially true when wheels have been removed. Blocking must be used either to support the weight of the car or to prevent rolling of the wheels.

16. When working on the street side of a vehicle, the workman must avoid stepping into the traffic lane without first making sure of clearance. At night, he must avoid blocking the view of head or tail lights with his body.

Accidents

17. In any accident involving personal injury or property damage, the driver must report by telephone as soon as possible to the Department of Safety and Claims and the Superintendent of Transportation, or, in outside districts, to the Local Manager. In this telephone report, he should state the place of accident, damage done, extent of any personal injury to the best of his knowledge, and name of license number of other party to the accident.

18. In case of accident involving personal injury, the driver's first thought should be the care of the injured. If the person injured is an employee of the Company, the Company Doctor for the district should be called or the injured person carried or sent to the Doctor. If the injuries are serious, the ambulance should be called and the injured person sent directly to the hospital. If the injured person is not an employee, the wishes of that person

Thoughts For Drivers

DRIVE your car as though it belonged to you, and remember that scratches and dents reflect on your ability.

Careless Driving is inexcusable and may result in serious injury to you as well as others.

Never block a street car or other vehicle. Remember that you are often a passenger and do not like to be delayed. Also, this is against the law.

Keep in line with the traffic and as far to the right of the road as you can.

Be on the Alert for signals from other drivers, for signals from traffic officers. Watch traffic signs.

Do Not crowd pedestrians, even though they are proceeding against traffic signs or lights.

Do Not "hog" the right-of-way. Remember that you will make friends or enemies for yourself and your company through your actions in driving your car.

should be consulted and a local Doctor, or police ambulance called, or other action taken according to the best judgment of the driver. The Company assumes no liability in such cases.

If it is necessary to leave the scene of accident before the police arrive, a Company employee should, if possible, be left there to give the necessary report. In any case the driver should, before leaving the place where the accident occurred, fill out the accident report blank furnished. The following information is absolutely essential:

- (a) Shield number of any officer.
- (b) Correct name and address of any injured person or persons.
- (c) Names and addresses of all witnesses.
- (d) An accurate sketch showing how the accident occurred.
- (e) Name and license number of any persons or vehicles involved.

The utmost courtesy should be observed in making requests for names, addresses, etc. Even the testimony of late arrivals is often valuable. The driver should avoid any dispute or discussion with any individual as to the cause of the accident. No excuses should be made. The driver should state that he is required to report the accident.

19. It must be remembered that even the most minor accidents may have future consequences and that every accident must be fully reported.

Accident Prevention

20. The driver should exercise good judgment in the use of the horn, and should avoid making it an unnecessary nuisance. It should be used:

(a) When approaching points where the view is obstructed, as at cross-roads, alleys, etc.

(b) To warn pedestrians or children at play.

(c) To warn other drivers of intention to pass.

21. A driver must always have his vehicle under control and be prepared to make a sudden stop when close to pedestrians. *Sounding the horn* may only startle them and cause them to step into danger.

22. Drivers must be especially cautious:

(a) When backing. He should always have a competent helper to guide him.

(b) When turning out from curb or making left turn.

(c) Overtaking and passing another vehicle.

(d) At intersections.

(e) On grades.

(f) When road or street is slippery for any reason.

(g) When towing another car.

Towing should be attempted only when authorized by a superior, and with a tow line suitable for the purpose. Skid chains or other make-shifts must never be used for this purpose. The tow line must not exceed a length of 16 ft. between vehicles, and should be provided with a red flag in center by day or with a red light in center by night.

(h) At all posted RR crossings.

Whether these are guarded or not, the driver is responsible for stopping, slowing down, or otherwise making sure that he may cross safely. Stop signs on railway crossings should be obeyed but the driver is allowed some latitude in cases where accompanying automobile traffic is heavy and a stop becomes more dangerous than to continue on across the tracks. In all such cases, however, the driver must use extra caution to guarantee a safe crossing.

23. A vehicle should always be driven as close to the right curb or edge of the highway as possible. In city driving, this must be modified to some extent by the presence of parked cars, but it is desirable to leave as much

(TURN TO PAGE 36, PLEASE)

Products on Parade

Descriptions of New Products Put Out by GMC, Stewart, Marmon-Herrington, Oshkosh, Highway, Thornton, Skinner, Doman-Marks and Jarrett

T-16 GMC's Newest

GENERAL MOTORS TRUCK CO. has jumped right into the midst of the highly competitive 1½-ton truck field with its new model T-16, the base price of which is \$595. Its gross weight rating is 9300, while the weight of the chassis is 3105. Wheelbases are 131 and 157 in.

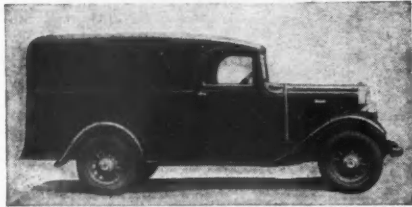
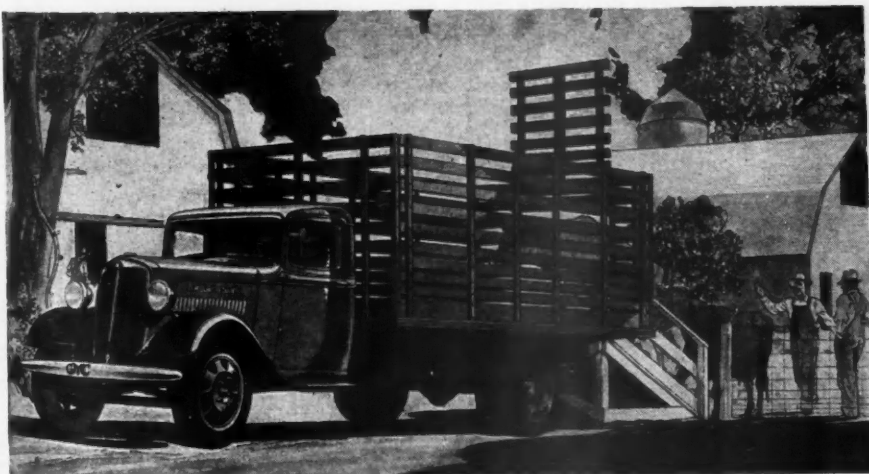
The price is the lowest ever carried by a GM truck of this capacity.

This entry in the current fight for business is in every way a worthy namesake of the 16,000 GMC model 16s that carried thousands of wounded doughboys from front lines to base hospitals during the Big Fight.

The powerplant is a new six-cylinder job with a displacement of 213 cu. in., 70 hp. at 3300 r.p.m., and maximum torque of 147 ft. lb. from 1400 to 1800 r.p.m. Other features include heavy, truck-type frames, with straight side-rails; four-wheel mechanical brakes and full-floating rear axle.

A complete line of good-looking bodies is available in 12 attractive and durable colors. The cab provides driver comfort and a windshield of safety glass.

High rack body on the GMC T-16 for hauling livestock



Stewart's rakish de-luxe panel body

Smart Stewart Body

STEWART MOTOR CORP. has designed a standard de luxe panel body, smart in appearance, and priced \$375 for the 7-ft. type; \$400 for the 8-ft., and \$450 for the 9-ft.

It is constructed of hard oak and ash. All outside parts are metal covered. The curved roof and sides give it a handsome and rakish appearance. Rear doors have new patented latches that prevent rattling and twisting.

Standard colors are Stewart green or red. Other colors at extra cost.

Herrington Adds 7

SEVEN new models have been added to the Marmon-Herrington line of all-wheel-drive trucks. Two are gasoline-powered and five have Diesel engines.

The entire Marmon-Herrington line now consists of five series of all-wheel-drive trucks and truck-tractors with a total of 28 different models ranging in capacity from 1½ tons upward.

Seventeen gasoline-powered Marmon-Herringtons now are available. The two new models are the TH340-4, a 20-ton four-wheel-drive, and the TH340-6, a 35-ton six-wheel-drive.

The five new Diesel models bring this type of Marmon-Herrington to the 5 and 6-ton fields. Eleven Marmon-Herringtons now have Diesel engines.

The new Diesel models are the THD310-4, 5-5½-ton four-wheel-drive; THD310A-4, 6-ton four-wheel-drive; THD340-4, 20-ton four-wheel-drive; THD310A-6, 10-ton six-wheel-drive, and THD340-6, 35-ton six-wheel-drive.

Thornton Improved

DESIGN revisions have been made in the Thornton Tandem six-wheel unit for light trucks. The transfer case is now a split steel casting, upper and lower halves being separate for ease of assembling and servicing. The top half can be removed for inspecting.

On the larger ball bearings are located troughs for steady oil supply. The intermediate shaft is locked in the case, the gear cluster turning on the shaft and permitting a slight floating action for self-centering of the gear.

Lowering the trunnion shaft has decreased the height of center of gravity and given a more direct line of drive.

Dual, heavier springs are used on each side. Three wheelbases are now offered as standard although almost any variation is available.

New Oshkosh \$2085

OSHKOSH MOTOR TRUCK, INC. has a new 1½-2-ton four-wheel-drive chassis called the JB and listing at \$2,085. Standard equipment includes coupe cab, full electrical equipment and dual 7.00/20 tires. Weight of chassis

Products on Parade

with cab is 5350 lb., and gross weight rating is 10,550.

One of the outstanding features is the improved Oshkosh steering ends. Steering is easy with no objectionable reaction in the steering wheel and a full 30-deg. angle turn can be made.

The engine is a six-cylinder Hercules JXB. A Warner four-speed with two-speed sub transmission gives eight speeds forward and two reverse. A low ratio of 80 to 1 is available and the high ratio makes possible a speed of 60 m.p.h.

The rear is full-floating, spiral bevel drive. There are two gas tanks, one on each side of the cab.

D-M Horizontalizes

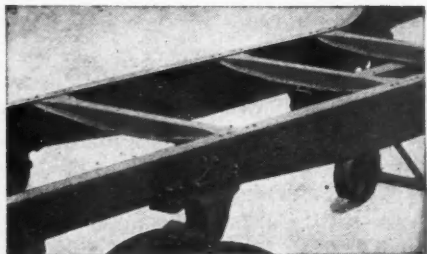
DOMAN-MARKS ENGINE CO. now offers three horizontal air-cooled engines in addition to its regular line of vertical engines. These engines were originally developed for a foreign government, for installation in crawler-type tractors where low overall height is essential. This is a requirement in cab-over-engine trucks.

The new horizontal engines, known as the 6AH line, are similar to three vertical engines produced by the company, the 6A-309, 6A-377 and 6A-400 (the last figures representing the piston displacement) except that they are laid on their sides, as it were. The principal changes for efficient operation had to do with the lubricating system.

Highway's New Frame

HIGHWAY TRAILER CO. has a new construction in its trailer frame which is said to obtain greater rigidity and a lightening of weight.

The improvement is in the cross-members, specially formed and shaped with jaw-like ends which fasten to the flanges



The Jarrett truck with the front-drive axle. Shows that front-drive axle does not affect the loading height

of the frame. These jaws inspired the designation "alligator trailer frame" for the new construction.

The patented design gives the cross-member a substantial trussing effect and simplifies manufacturing in that it enables direct side-rail to cross-member riveting.

Highway has also changed its screw jack supports. Tie rods are more rigid and rollers are equipped with roller bearings. A considerable saving in weight is effected.

A Smaller Skinner

A LINE of oil purifiers with capacities ranging from 3 gal. in 24 hr. up, and automatic in operation has been brought out by Skinner Motors, Inc., of Detroit. The purification process, in effect a pressure filtering arrangement, removes even the finest particles of suspended matter in the oil.

Operating cost of the oil reclaimers runs from around 2c. per gal. reclaimed on the larger units to 4c. a gal. on the smallest size, based on an estimated current cost of 5c. per kwhr.

The filtering element consists of a large number of parchment-like discs. The principle is known as "edge filtration," the oil passing between the compressed discs rather than through the material. The oil, when it passes through, does so in virtually a vapor form.

A thermostatically-controlled lamp maintains the correct temperature.

At left—A section of the new Highway trailer frame showing the new type of cross-member with jaw-like ends, lighter and more rigid

At right—One of the new Skinner oil purifiers, modernized design which improves appearances

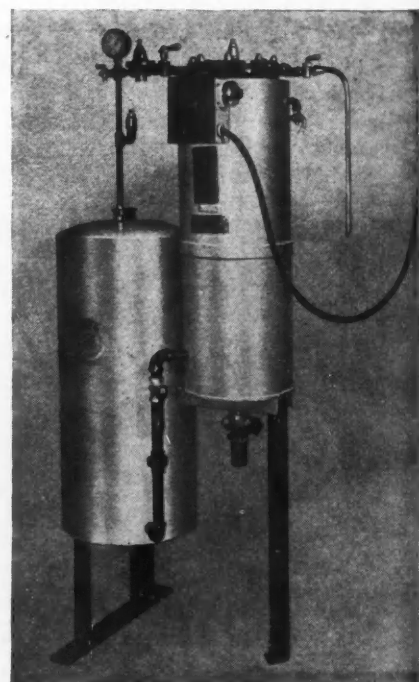
Front-Drive Axle

THE J. C. Jarrett Motor & Finance Co. announces availability of its patented front-drive axle for use in four-wheel-drive trucks and for converting conventional two-wheel-drive trucks to four-wheel-drive.

The axle is a full-floating, double, reduction type, the gears of which are interchangeable with those of the rear axle. The differential housing, brakes and brake drum assemblies are mounted on a motor trunnion which is assembled in the truck frame in the usual manner. The axle is mounted at the front of the engine, and occasions no increase in the loading height. Clearance required under the engine for the front-drive shaft is less than in conventional types.

Brake drums can be mounted either at the hub or on either side of the differential.

Light-type axles of this design will be supplied for front-drive passenger cars also.



The Information Desk

Truck Output 185 Per Cent Ahead

March truck production, totaling 59,750 units, raised the first quarter total to 153,015 units, an increase of 185 per cent over the first quarter of last year.

The March total was 217 per cent better than the 18,822 production figure for March, 1933. It was an improvement of 28 per cent over the 46,574 units produced in February of this year.

March recorded the best production since May, 1930.

White Ups Wages

A voluntary 10 per cent wage increase has been given the 3100 employees of the White Motor Co., according to an announcement by G. W. Smith, Jr., vice-president.

The increase, which became effective May 1, is the third general increase of 10 per cent given the employees of the organization since last August.

Studebaker Creditors Get Plan

A tentative reorganization plan for the Studebaker Corp. has been submitted to creditors, according to Dow, Jones & Co. Details of the plan have not been disclosed, nor is it known how soon definite action on reorganization can be expected.

Willys-Overland Resumes

Operations at the Willys-Overland Co. here were under way again Monday after a week's layoff to accumulate parts. About 3000 workers are on the payroll when production is in full swing.

Chevrolet 124,000 Ahead

Shipments to domestic, export and Canadian dealers by Chevrolet Motor Co. during the month of April totaled 109,706 units. This compares with 59,953 units in April, 1933. Year to date shipments, up to and including April 30, total 332,716 units as compared to 208,289 units in the same period of 1933.

Reo Shipments Boom

Reo shipments for April, according to Elijah G. Poxson, general sales manager, were more than three times those of April, 1933, and almost 50 per cent above March, 1934. Total shipments for the first four months of this year were two and a quarter times those of the same period a year ago, and equal to the total volume of shipments up to Aug. 5 of last year.

Rural Dealers Spurt

Ford production is now running in excess of 90,000 cars and trucks per month. Reports indicate that rural dealers, who have been more or less inactive for the last three years, are again doing business on a scale comparable to 1929, and some of these report that their volume of business thus far this year is greater than all of 1933.



D. E. Bates, New Reo President

Bates Heads Reo

D. E. Bates was elected president of the Reo Motor Car Company and R. E. Olds reelected chairman of the board at a directors' meeting which followed immediately after the stockholders had expressed confidence in the present management by an overwhelming vote.

Other officers named by the board were: George E. Smith, vice-president; Ray DeVlieg, vice-president; George L. Brown, secretary-treasurer; Dean M. Parsons, assistant secretary and treasurer. Executive Committee: R. E. Olds, chairman; D. E. Bates, Ray DeVlieg and George E. Smith.

Mr. Bates, the new president, has been associated with Reo since 1905 and since Sept. 3, 1907, has served as secretary and treasurer and director. His selection is an extremely popular one with stockholders and dealers alike.

Mr. Bates disclosed that the company was in splendid position financially with a ratio of current assets to current liabilities of more than 9 to 1.

Dodge Sells 14,571

Dodge retail truck and commercial car deliveries in the first 18 weeks of the present year totaled 14,571, a gain of 505.6 per cent over the same 1933 period. Total sales for all of 1933 were 28,000.

Wilkening Gain 44.3 Per Cent

The Wilkening Mfg. Co., Philadelphia, announces that the sales volume on its Pedrick piston rings for the first quarter of 1934 is 44.3 per cent greater than for the same period in 1933. The Wilkening payroll is up 51.6 per cent.

Foley Incorporates

The general trucking business of William J. Foley, Portland, Me., has been incorporated under the name of W. J. Foley Trucking Co. William J. Foley is president and treasurer.

Champion Presents Films

Champion Spark Plug Co., through its field organization, is presenting a very complete series of sound on film production to jobbing organizations and the dealer trade. The program comprises four film subjects.

The first production covers the mysteries of the whys and wherefores of ignition systems; the second film, "Under Fire," traces the history and development of transportation and the vital part spark plugs have played in that progress; the third is packed with hair raising thrills showing the use of Champion spark plugs by racing champions; the fourth film, "Champions At Work," is a short merchandising film.

Fruehauf Expands Further

Harvey C. Fruehauf, president of Fruehauf Trailer Co., announces construction is nearing completion on a building planned especially for the service department. The addition represents the second recent expansion of the Fruehauf factory, a 40,000 sq. ft. body plant having been completed in January.

Team & Truck Convention

The National Team & Motor Truck Owners Association will hold its thirty-second annual convention at Cedar Point (Sandusky) Ohio, on July 15, 16 and 17. All local haulers, whether affiliated or not, are invited to attend. Business sessions are expected to develop vital discussions of the trucking code. E. Foster Moreton of Detroit is president of the association.

Engine Rebuilders to Meet

The twelfth annual convention and exhibit of the Automotive Engine Rebuilders Association will be held June 11 to 15 at the Hotel Sherman, Chicago, according to announcement made by John L. Heckman, president. Over 40 parts manufacturers will exhibit.

An Unusual Order

Bishop, McCormick & Bishop, Brooklyn, N. Y., Dodge dealer, recently ordered one entire day's output of the Dodge truck plant. Filling of the order calls for the production of exactly 300 Dodge Brothers trucks and commercial cars.

The various types of vehicles covered in the order were: Chassis and cab, 205; panel type trucks, 90, and commercial express type, 5.

Bowman Federal Director

At the annual meeting of the stockholders of the Federal Motor Truck Company, J. F. Bowman, vice-president in charge of sales, was elected to the board of directors.

Driving According to Hoyle

(CONTINUED FROM PAGE 32)

space on the left available for other vehicles as possible.

24. Passing another vehicle from the rear at a point where the driver's view is obstructed, as on a hill, curve, or blind crossing, is positively prohibited.

Driving Signals

25. Standard arm signals must be used:

Right Turn—Left arm extended from the car and pointed upward.

Left Turn or Pulling Out From Curb—Left arm extended in horizontal position.

Stopping, Slowing, or Backing—Left arm extending and pointing down.

In pulling out from the curb, the signal is not enough; the driver must see that he is in the clear.

Control of Vehicle

26. Coasting down hill with gear in neutral is absolutely prohibited. At a given speed, a greater distance will be required to stop a car when descending a grade than on the car level. Drivers must accustom themselves to the distances required for stopping their vehicles under different conditions of load, surface and speed.

Gears and clutch must be kept engaged at all times when moving. This will help to prevent skidding, and gives better control of the car. The clutch should be disengaged only to shift gears or just before the vehicle comes to a complete stop.

27. A smooth application of power is an indication of a good driver. Allowing the clutch to engage violently or with a jerk, is an unnecessary strain on the entire vehicle and will eventually ruin the mechanism. Sudden opening of the throttle will result in similar damage if practiced.

28. Brakes should not be applied suddenly unless this is necessary to prevent accident. A gradual application is more effective, far less harmful to tires and running gear, and causes less discomfort to passengers. A gradual slowing or stop also gives time for following cars to stop. A driver should also maintain sufficient space between his own and a vehicle which he is following, to stop if necessary.

No vehicle should be operated with defective brakes. Where defective brakes are noted while vehicle is in use, the garage should be notified and the vehicle not moved until the brakes are adjusted or repairs made.

It must be remembered that wet sur-

faces, ice, sleet or snow, loose sand or ruts, present hazards which can only be met by reduced speed and caution.

29. Driver and passengers should board and alight from a vehicle on the curb side, never from the roadway side if it can possibly be avoided.

30. In mountain driving, it is desirable from both operating and safety standpoints to descend grades in the same gear which would be required to ascend them. It is also desirable on a grade to shift to a lower gear before such action becomes an absolute necessity.

31. When it becomes necessary for a driver to leave his parked vehicle, even for a brief period, before leaving the driver's seat, he should:

- (a) Shift gears to neutral.
- (b) Stop motor.
- (c) Remove ignition key.
- (d) Apply emergency brake.
- (e) Lock all operating parts, for which keys are provided.

Vehicles should not be parked on a grade unless absolutely necessary. Where so parked, the vehicle should face up grade with the rear wheel cut in against the curb. When facing down grade, the front wheel should be cut against the curb. Lacking a curb, chocks must be used, preferably at rear wheels. Leaving vehicles with low or reverse gear engaged is not recommended.

Speed

32. Vehicles should be driven at a moderate rate of speed, consistent with road and traffic conditions. A driver is required to obey local traffic laws. He must drive at a speed at which he has absolute control over his car and should adapt his speed to that of other vehicles in the accompanying traffic as far as possible.

Standard Equipment

33. Trucks and cars owned by the Company are required to have the following equipment in good condition and ready for use:

- (a) Two headlights, with adequate bright and dim lights, and tail light.
- (b) Tire chains.
- (c) Windshield wiper.
- (d) Rear-view mirror.
- (e) Fire extinguisher.

Right of Way

34. Right of way belongs to and must be yielded to:

- (a) Railway trains and street cars.
- (b) Fire and police cars and trucks.

(c) Ambulances and funeral processions.

(d) Pedestrians at crossings.

(e) All traffic on through streets or highways.

(f) All vehicles approaching from the driver's right.

It should be remembered that by most traffic codes all right of way is surrendered by a driver while making a left turn.

Loading and Unloading

35. The driver is responsible for the loading of the vehicle, whether it is part of his duty to assist in loading or not. The following rules must be observed:

(a) Local ordinances must be complied with.

(b) Load must be properly distributed and not piled too high.

(c) Projections of load over body lines which cannot be avoided must be properly marked with warning flags or lights.

(d) Load must be handled from the curb side of the street or road if at all possible.

(e) Tail-boards, doors, and all detachable equipment must be made secure before proceeding.

(f) If passengers are authorized to ride, they must be seated in such a manner that no part of their persons can project beyond the body lines of the vehicle.

(g) The vehicle must not be overloaded and must be so loaded as to permit the driver a clear vision to the rear.

(h) Where necessary, ropes or blocking shall be used to secure the load and prevent its shifting while enroute.

(i) Where necessary, padding or bracing shall be used to prevent marring or injury to parts of the load.

Garage Repairs

36. Extension lights, soldering irons, drills, and other electrical equipment must be in good condition when used on or near a vehicle.

Motors should not be permitted to run idle in the garage or other enclosed space unless a pipe or hose connection, or other proper ventilating system is provided to carry off exhaust gases to the open air.

Privately Owned Cars

37. All Company employees using their private cars on Company business are required to have their brakes and lights inspected at least once in every ninety days, and to carry brake certificate at all times.

90-Cent Truck Registration Fee Is Amply Justified

THE code of fair competition for the trucking industry provides for registration of all "for-hire" trucks, and payment of a registration fee of \$3 for each vehicle; also for registration of all not-for-hire trucks, and a registration fee of 90 cents each. Some interests operating trucks exclusively in their own business protested against this 90-cent fee on the ground that there was no reason why it should be required of them. General Johnson has approved the \$3 fee, but left the 90-cent fee for future determination, after hearings.

AWORD of explanation seems to be called for in this connection. One of the most important objects of the trucking code is to determine to what extent trucks actually come in competition with other modes of transportation. The railroads have charged that their loss of revenue has been in considerable part due to truck competition. On the other hand, the highway transportation interests have insisted that only a very small percentage of truck traffic is competitive with the rails. To the contrary, they insist that the trucks, in bringing business to rail-

road stations or distributing it from them, make possible a large railroad tonnage that would never get to the rails but for the truck's service. They say that if detailed statistics of all the trucking operations could be had, and if it could be shown how great a share of truck tonnage is also rail tonnage, it would be found that the net result of all truck operations is actually to increase rather than decrease the aggregate of rail business.

THOSE who have most closely studied this question believe the truck people are right. They point out that of the 3,500,000 trucks in operation, not over 400,000 or 500,000 are doing "for-hire" business. They say that the remaining 3,000,000 trucks are, in effect, merely tenders to the railroads, originating freight and bringing it to the rails, or distributing it from them.

IT is important that the best possible statistics bearing on this controversy should be developed. The trucking code, with its requirements for registration of all trucks and for such reports as will indicate the character of

their business, aims to collate exactly these data. The national trucking code authority fixed the fee of 90 cents for not-for-hire trucks only after careful and expert consideration of the expenses of registering the vehicles, getting in the necessary reports, and analyzing the entire mass of information. Only thus can an accurate picture be presented of the entire industry; only thus can an authoritative answer be made to the exaggerated contentions of the railroads.

FOR these reasons the friends of highway transportation believe the program of requiring registration and reports from all trucks is one of the most useful features of this code. They are convinced that if the plain truth were known about the service of the trucks as a whole to business and to the railroads, there would quickly be an end to demands for suppression of highway freight movement. It is therefore urged that everybody who uses trucking service, whether it is owned or hired, whether interstate or intrastate, ought gladly to pay the small fee and make the reports that will be asked.

"Wanna Buy a Duck?"

(CONTINUED FROM PAGE 14)

In other words, it's a swell idea because "fair exchange is no robbery."

The fallacy of the notion is that while progress is being forced on the railroads, the truck industry will suddenly halt its epochal progress, curl up and offer nothing in the way of improved equipment or service to meet the keener competition of the railroads.

IF this represents the best thought of transportation brain-trusters, they greatly and woefully underestimate the potentialities for improvement in the

manufacturing and operating branches of the truck industry. If the railroads improve their service (and they should), if they begin to reveal themselves as real competitors of the motor truck (and more power to them), the effect will be to accelerate the natural progress of the truck industry toward constantly lower operating costs, and to maintain the truck's competitive superiority.

THE real fear is that this does represent the best thought of the trans-

portation brain-trusters. Its effect when tied up with federal regulation of motor carriers is something to worry about. Because with regulation they could readily make their ideas regarding "economic spheres of operation" effective by refusing certificates of operation over routes extending into the so-called "uneconomic sphere." And—

Well, do you wanna buy these ducks?

(For details of the merchandise report, see the April issue and page 19 of this issue.)

Truck Makers and Dealer Group Confer on Code

AMEETING was held May 9 between representatives of the truck manufacturing group and the National Automobile Dealers Association in an effort to arrive at a formula for the proposed supplementary code for trucks. At the meeting the following motions were adopted:

THAT the trade-in allowances on trucks should be based on a depreciation scale or scales and that

N.A.D.A. should prepare a depreciation chart or charts based upon sales records of used commercial vehicles and also from data to be submitted by the various manufacturers covering sales in the heavy truck group. When this information is compiled, it is to be submitted at a further meeting of the committee to determine the actual depreciation scale, or scales to be included in the proposed Supplementary Code.

A further motion was made that

N.A.D.A. should obtain all necessary data in connection with the building of a catalog listing the chassis, body types and special equipment for all trucks and estimated cost for producing such manual—the manufacturers to cooperate by furnishing all available data necessary in this work. This catalog would then be made available to all dealers at a cost basis. The initial expense would be underwritten by truck manufacturers.

35,000 Shippers Swear

(CONTINUED FROM PAGE 19)

venience of store-door pick-up or delivery. This reason ranked next-to-last in the factors limiting the use of motor transportation. The factors and their relative importance judged by the percentages of shippers and of the traffic represented are shown as indications of the negative factors which must be overcome if motor freight transportation is to be further improved.

Reasons Limiting Use of Motor Transportation	% of Shippers	% of Tonnage
Lack of responsibility	25	29
Failure to maintain regular schedule	16	15
Lack of uniform or definite rates	12	16
Charges too high	10	12
Pick-up or delivery inconvenient	7	5
Excessive loss or damage	3	2

AFTER considering the relative importance of store-door pick-up and delivery services as positive forces attracting shippers to use motor freight services and as negative factors limiting the use of motor transportation, the absolute importance of store-door freight services may be determined by consulting the evidence of 35,000 shippers. Approximately 60 per cent of the total number of shippers indicated that they desired both store-door pick-up and delivery service, only 1 per cent wished pick-up service only, 13 per cent wished delivery service only, and 14 per cent had nothing to say on the subject. Only 12 per cent did not want either pick-up or delivery service.

If further light is needed upon the importance of the store-door freight services it is found in the answers of shippers and consignees in various parts of the United States. For purposes of examination and comparison the United States was divided by the Section of Transportation Service into seven major territorial divisions and four terminal areas. It is noteworthy that the demand for store-door delivery exceeded consistently the demand for store-door pick-up in all territories, and that the demand for both services was usually greater in the great metropolitan centers where the volume of traffic is particularly heavy.

THE demand for pick-up and delivery services is not confined to a few lines of business but evidence has heretofore not been available that would serve to indicate the relative demand for the services in representative businesses. All of the evidence on this point cannot be offered because of lack of space, but sufficient data are produced to convince the most skeptical

that the demand is not confined to a limited range of businesses.

The percentage of shippers in selected representative lines of business activity indicating that store-door pick-up and delivery services are influential reasons for their use of motor freight transportation; and the percentage indicating that the inconvenience of pick-up and delivery services is a deterring influence are shown below.

Such overwhelming and consistent testimony shows clearly the value of store-door collection and delivery services to motor carriers in their efforts to give shippers what they want.

Business	% Shippers Credit-ing Pick-up	% Shippers Credit-ing Delivery	% Shippers Claim-ing Limitation
Auto parts & accessories	72	78	4
Beverages	60	74	6
Books, stationery & printing	56	70	6
Boots and shoes	56	68	6
Building materials	38	54	6
Candy, confectionery & baking goods	64	84	6
Chain stores	54	76	12
Clothing, millinery & hats	38	50	8
Cotton	54	54	6
Department & dry goods	34	62	4
Dry goods, wholesale	54	64	12
Drugs and chemicals	54	72	8
Fruits and vegetables	38	60	10
Furniture & household goods	50	76	8
Groceries	44	70	6
Iron, steel & hardware	56	68	8
Leather & leather articles	60	70	6
Machinery & Tools	58	64	8
Metals	58	68	8
Packing house products & cottonseed products	46	62	10
Paints & varnishes	68	82	6
Petroleum products	52	62	4
Porcelain, china & enamelware	52	74	10
Rubber & rubber goods	70	80	8
Textiles	52	62	10
Tobacco, cigars & cigarettes	50	68	6
Miscellaneous	42	56	8
Jobbers	50	66	6

* Less briefly—Percentage of shippers indicating that store-door pick-up and delivery services are factors impelling them to use motor freight service.

† Less briefly—Percentage of shippers indicating that inconvenience of store-door pick-up or delivery is a factor limiting use of motor freight service.

The Retail Truck Code

(CONTINUED FROM PAGE 11)

truck dealers being sold out over night to the exclusive truck dealers. It would tip every prospect for a Ford, Chevrolet or Dodge truck.

I sound that note of warning to show the necessity of building a truck identification catalog. (And let me say that such a catalog would look more like a New York City telephone book than the

present Guide Book.) That catalog would be placed in the hands of local executive committees and the dealer could obtain his information from this neutral body.

THE next consideration is the time depreciation scale following the one suggested in the truck manufacturers' proposed code. We discovered that a hardship had been worked on the trucks handled by Dodge, Ford and Chevrolet dealers because the depreciation scale presented an entirely too severe rate of depreciation, compared with the actual resale value of those units. However, before a satisfactory depreciation scale can be established it will be necessary to determine how much should be given the dealer as a handling charge, whether 5, 10, 15, 20 or 25 per cent.

The other consideration is this: We can't leave in the present Guide Book a 3/4-ton listing and 1/2-ton listing, so called, and then establish on the end of that a time depreciation for trucks of higher rating because there is absolutely no interlocking of rating. You would have an absolute difference of opinion and would have two formulas working.

MY suggestion is that the provisions, covering the valuation of used commercial vehicles be taken out of the motor vehicle retailing code and replaced with a new time depreciation scale to cover all commercial vehicles.

There is a possibility, at this time, that we may have to employ two time depreciation scales for it is contended that trucks in the very heavy class with slow engines (engines that turn 1400 to 1500 r.p.m. and do virtually no speed work on the highway, move slowly and carry heavy load) have a longer life than the truck commonly sold for regular work. That is a contention and not an established fact. We are attempting now to establish the fact that it is not true.

GENERALLY, that presents to you the broad view of how we propose to go about this rather complicated job of building a truck code. Now the question is how you propose to go at it. If you all conclude that it is necessary and agree with me that a truck catalog should be built in order not to sell out passenger car dealers to the independent truck manufacturer group, that is number one. Second, we should prepare some method of handling this, and third, if you determine on a time depreciation scale, I would assure you there will not be in excess of two such scales. The change to a slower rate of depreciation will be a long ways up from a ton and a half. It will break nearer three tons.

COMMERCIAL CAR JOURNAL'S

TRUCK SPECIFICATIONS TABLE

The Commercial Car Journal's Truck Specifications Table is brought up to date in each issue from data supplied monthly by truck manufacturers

KEY TO ABBREVIATIONS AND REFERENCE MARKS

GENERAL

Chassis Price—Chassis price quoted applies to the standard wheelbase and specifications listed. All prices are F.O.B. factory.

***—List price not yet established. Ready next issue.

Tonnage Rating—Where a spread of ratings is given the maximum ratings are for ideal operating conditions and the minimum for extremely difficult conditions; the ranges between are for varying operating conditions.

Gross Vehicle Weight—Is chassis weight, plus body and cab, plus payload. Gross vehicle weight given for a model is based on maximum recommended tire size and not on tires listed as standard equipment.

Chassis Weight Stripped—Includes gas, oil and water and all things included in chassis price. Does not include the weight of cab.

Maximum Brake H. P. at Given R.P.M.—Is actual dynamometer reading without accessories.

Tractors—Unless given the designation N (meaning not available as tractor), all standard models may be assumed to be available as tractor.

(A) All Torque and Brake Horsepower values listed are based on engine outputs with all Standard Equipment Accessories running and are the same values obtaining with the truck on the road in actual operation.

(N) Not available as tractor.

(T) This designation accompanying a model number indicates vehicle is specifically designed for tractor use only. c. o. e.—Cab-over-engine design.

(3) Corbitt—Larger engines and corresponding auxiliary units provided on all models at extra cost.

(4) Day Elder—Model 75—1½ ton—same specifications except price—\$945, and larger tire size—B6.00/20 front and DB6.00/20 rear.

(5) Dodge—F-61 available as special tractor truck with 146-inch wheelbase with model designation of F-60, at \$2645. K-61 available as special tractor truck with 146-inch wheelbase with model designation of K-60, at ***.

(5a) Dodge—Model H20, 1-ton, gross vehicle weight 6,000 lb., price \$502, has same specifications as H30 except tires which are 7.50/17 and lighter rear springs.

(6) General Motors—Models T-18 to T-61 inclusive are also available for export only as coach chassis. Double reduction axles optional at extra cost in Models T-43, T-43T, T-95 and T-51. Trailing type axles available on Model T-95 at price deduction. Optional size engines available on Models T-85, T-85H, T-95, T-10 and T-130 at varying costs. Chassis prices and weights on all cab-over-engine models include the cab.

Gramm—Larger engines and corresponding auxiliary units provided on all models at extra cost when type of service demands. Wheelbases and body mounting dimensions may change to suit special requirements. Double reduction axles available on all models except AX and BX.

Gross weight indicated for each model in the table is the straight rating. Series CXH is supplied with Hercules JXB engine in Model CXHB and Hercules JXC in Model CXHC.

(7) Grass Premier—Eight cylinder engines available on following models: 835 with Lyc. GU at \$1515 list; 865 with Lyc. HF at \$4230; 875 with Lyc. AE at \$5400.

(8) International Harvester—A-1, ½ ton, same as A-2 except less spring leaves and smaller tires.

(9) Le Moon—Model 600 available with Lyc. AEC at same cost. Models 701 and 801 available with Waukesha 6SRL at same cost.

(10) Sterling—Rocker arm used in place of springs.

(*) Sterling—These models also available equipped with Cummins Model H Diesel engine.

†Reo—Model 1D is the longer wheelbase edition of Model 1B. The frame dimension is 7x2½ ft. It is furnished at extra cost.

††Reo—2J, 2K same as 2H except 166 in wheelbase and price of \$1695

††Reo—3J same as 3H except wheelbase of 170 in. and price of \$2085; 3K

same as 3H except 185 in. wheelbase and price of \$2155. 3M same as 3H except 205 in. wheelbase.

(11) Studebaker—S-2 in 141 in. and 165 in. wheelbases has 6½ in. frame depth. (12) White—Each model shown is furnished with different specifications for different tonnage ratings.

*—Factory governed speed 2400 r.p.m. (12a) White—Special prices for each installation.

(13) Marmon-Herrington—Available with Hercules Diesel engine. Price on application.

(14) Ford—Rear axle ratios 5.14 and 6.6 optional on 1½-ton trucks.

(15) Mack—Chassis price and weight include cab.

(16) Biederman—Will furnish Continental, Hercules, Waukesha and Lycoming engines at the buyer's option.

MAKES—ALL

AB—American Bosch.
A LaF—American La France.
AL—Auto Lite.

B—Bendix.
BB—Borg & Beck.
BL—Brown-Lipe.

BO—Bendix front, Own rear.
Blo—Blood.
Bu or Bud—Buda.

BW—Borg Warner
BWs—Bendix front, Westinghouse rear.

C or Col—Columbia.
Car—Carter.
Ch—Chicago.

CI—Ignition by compression.
Cl or Cla—Clark.
Cle—Cleveland.

Co—Covert (transmission)
Co—Covert (clutch).
Con—Continental.

Cot—Cotta Gear.
Cum—Cummins-Diesel.
Det—Detroit Lubricator.

DQ—Detroit Gear and Machine.
DR—Deleo Remy.
Eat—Eaton.

El—Eisenmann.
EG—Governor built in engine.
EV—Electro-Vac (gov.) Pierce.

Fe—Pedders.
Fu—Fuller.
Ge—Gemmer.

GO—G. & O.
Ha—Handy (governor).
Ha—Hannum (steering gear).

HaS—American Car & Fdry.
Her—Hercules.
Mr—Harrison.

HS—Merchant & Evans (clutch).
HS—American Car & Fdry. (governor).
Jac—Saginaw.

Jo—Jones.
KP—Handy.
L—Lockheed.

Li—Lipe, W. C.
LN—Leece Neville.
Lo—Long.

LO—Lockheed front, Own rear.
LW—Lockheed front, Wisconsin rear.
Lyc—Lycoming.

Mc—McCord.
Ma—Marvel.
ME—Merchant & Evans.

MM—Mechanics Mach.
Mo—Modine (radiator).
Mo—Monarch (governor).

My—Mallory.
NE—North East.
No—Not supplied.

ns—No Standard.
O or Ow—Own.
Op or Opt—Optional.

Pe—Pierce (governor).
Pe—Perfex (radiator).
PS—Peters & Sneed.

RB—Robt. Bosch.
Ro—Rockford.
Ros—Ross.

Sc—Scintilla.
Sch—Wheeler-Schebler.
Shu—Shuler.

SpB—Spicer and Blood.
Sp—Spicer.
Ste or St—Sterling.

Str—Stromberg.
Til—Tillotson.
T or Tim—Timken.

TWH—Timken Wisconsin Herrington.
WG—Warner Gear.
Wa—Waukesha (governor).

Wau—Waukesha.
W or Wis—Wisconsin.
Wa—Westinghouse.

Yo—Young.
Zen—Zenith.

BRAKES—SERVICE

Location

2—Two Wheels, rear only.
2/4—Two-wheel brakes effective on all four wheels through driveshaft.
4/6—Brakes on four rear wheels effective on all wheels through driveshaft.
T/4—Brake on transmission effective on all four wheels through driveshaft.
4—Four Wheels, front and rear.
4r—Four Wheels, rear only.
6—Six Wheels, front and rear.
J—Jackshaft.
P—Propeller shaft.

Type

I—Internal.
X—External.

Operation

A—Air.
H—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
R—Worm or bevel gearshaft.
T—Transmission.
F—Driveshaft.

Type

D—Tru-Stop disk.
I—Internal.
X—External.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Fdry.
C—Centrifuge.
D—Dayton.
E—Ermalite.
G—Gunite.
H—Hunt Spiller.
c—Cast iron.
p—Pressed steel.
P—Pressed steel.
s—Cast steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

CLUTCH

Type

D—Multiple disk.
dp—Double plate.
O—Plate in oil.
P—Single plate.

ENGINE

Valve Arrangement

F—Inlet valve in head; exhaust valve at side.
H—In head.
L—"L" head, valves at side.
T—Inlet and exhaust on opposite sides.

Camshaft Drive

C—Chain.
G—Gear.

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut.

Main Bearings

r—Rear main bearing.

Oiling System

CC—Pressure to main, connecting rod and camshaft bearings.

FP—Pressure to main, connecting rod camshaft bearings and piston pins.
PC—Pressure to mains and connecting rod bearings.
PG—Pump, gravity and splash.
PS—Pressure with splash.

FRAME

Type

I—"I" Beam.
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and flaps.
P—Channel reinforced with plate.
TL—Channel tapered front and rear reinforced with liner.
D—Drop Center.
Tr—Tapered front.
X—X-Braced.

FUEL SYSTEM

Fuel Feed

E—Electric pump.
G—Gravity.
M—Mechanical pump.
P—Pressure.
V—Vacuum.
B—Bosch.
C—Cummins.

REAR AXLE

Final Drive and Type

B—Bevel.
C—Chain.
D—Dead.
F—Full-floating.
2—Double Reduction.
S—Spiral bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
1/2—Semi-floating.
3/4—Three-quarter floating.

Drive and Torque

A—Radius Rods and Torque Arm.
H—Hotchkiss (springs).
R—Radius Rods.
T—Torque Arm.
U—Torque Tube.

SPRINGS

Auxiliary Type

1/4—Semi-elliptic above or below main springs.
1/2—Quarter elliptic.
C—Coil spring.
N—No.
O—Optional.

TIRES

B—Balloons.
DB—Dual Balloons.
P—High Pressure Pneumatics.
DP—Dual High Pressure Pneumatics.
S—Solids.
DS—Dual Solids.
*—Pneumatics at extra cost.

TRANSMISSION

Location

A—Amidships.
J—Unit with jackshaft.
U—Unit with engine.

Auxiliary Location

No—Not furnished.
O2—2 speed axle unit optional at extra cost.
Op—Optional at extra cost.
A—Amidships.
R—Rear of amidships main transmission.
U—Unit with engine.

WHEELS DRIVEN

2C—Center pair of rear wheels.
2R—Rear pair of rear wheels.
4F—Front and center pair of rear wheels.
4R—Four rear wheels.
6—Six wheels.

Line Number	MAKE AND MODEL	GENERAL (See Keynote)				TIRE SIZE		MAJOR UNITS						FRAME			
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE		Type	
										Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Speed	Make and Model	Gear Ratios		
1	A.C.F.	160.6	6950	186	222	26000	10170	B9.75/22	B9.75/22	Has 160	6-4 1/2 x 5 1/2	BL 1714	U4 Op	Tim 76730	2F	R 7.46 52.7 8x3x4	P
2		175B 1 1/2	8300	186	222	26000	10750	B10.50/24	B10.50/24	Has 175	6-5 1/2 x 5 1/2	BL 714	U4 Op	Tim 76730	2F	R 7.46 52.7 8x3x4	P
3		175A 1 1/2	8800	186	240	30000	11610	B10.50/24	B10.50/24	Has 175	6-5 1/2 x 5 1/2	BL 714	U4 Op	Tim 79730	2F	R 7.46 52.7 8x3x4	P
4	Armleder	11H 1 1/2-2 1/2	1295	156	195	11500	4850	B6.50/20	DB6.50/20	Con 16C	6-3 1/2 x 4 1/2	BL 35	U4 No	Tim	BF	H 5.83 31.2 6x3x4	P
5		21Ha 2 1/2-4	2185	160	207	15300	5450	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	OwN	U5 No	Tim	BF	H 6.06 38.5 6x3x4	P
6		31Ha 3 1/2-6	2895	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6-4 1/2 x 4 1/2	Fu 5A38	U5 No	Tim	BF	R 6.02 39.2 7x3x4	P
7		41Ha 4 1/2-8	3050	146	227	23000	6600	B9.75/20	DB9.75/20	Fu 5A38	6-4 1/2 x 4 1/2	Fu 5A38	U5 No	Tim	BF	R 6.83 43.8 8x3x4	P
8		61Ha 5 1/2-11	3725	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6-4 1/2 x 4 1/2	Fu 5A38	U5 No	OwN	2F	R 7.07 49.7 8 1/2 x 3 1/2	P
9		71Ha 6 1/2-11	5895	152	247	35000	9820	B10.50/24	DB10.50/24	Her RXC	6-4 1/2 x 5 1/2	Fu 5A53	U5 No	Wls	2F	R 7.07 49.8 8 1/2 x 3 1/2	P
10		(T) TRD 10	4150	148	174	35000	7100	B9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 4 1/2	Fu 5A53	U5 No	OwN	2F	R 7.8 56.8 7x3x4	P
11		(T) TRDA 12	4350	148	174	39000	7226	B9.75/20	DB9.75/20	Her YXC3	6-4 1/2 x 4 1/2	Fu 5A53	U5 No	OwN	2F	R 7.8 56.8 7x3x4	P
12		(T) TRDB 15	4595	148	174	45000	7326	B9.75/20	DB9.75/20	Her RXC	6-4 1/2 x 5 1/2	Fu 5A53	U5 No	Wls	2F	R 7.8 56.8 7x3x4	P
13	Autocar	RG 2 1/2	3000	150	192		700	P34x7	DP34x7	OwN SD	6-3 1/2 x 4 1/2	OwN T	U4 No	OwN D	2F	H 6.21 39.3 8x3x4	T
14		D3 3 1/2	3500	150	192		6140	P34x7	DP34x7	OwN SD	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN D	2F	H 6.21 39.3 8x3x4	T
15		DF 3 1/2	3950	150	192		7010	B9.00/20	DB9.00/20	OwN SD	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN TE	2F	H 6.43 40.7 8x3x4	T
16		DH 4	4150	150	174		7400	P36x8	DP36x8	OwN SD	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN N	2F	H 6.57 54.3 8x3x4	T
17		N4 4	4650	191	227		8275	B9.75/20	DB9.75/20	OwN SCH	6-4 1/2 x 4 1/2	OwN D	U5 No	OwN N	2F	H 7.20 45.6 9x3x4	T
18		NF 5	4750	151	227		8370	B9.75/22	DB9.75/22	OwN SCH	6-4 1/2 x 4 1/2	OwN D	U5 No	OwN TF	2F	H 7.20 45.6 9x3x4	T
19		8 5	5500	168	168		9675	B9.75/22	DB9.75/22	OwN SCH	6-4 1/2 x 4 1/2	OwN T	U4 A 3	OwN CG & N	2F	H 7.20 45.6 9x3x4	T
20		C 7 1/2	6500	158	176		11784	B10.50/24	DB10.50/24	OwN SCH	6-4 1/2 x 4 1/2	BL 734	U4 A 3	Wls 78720	2F	H 9.92 121.1 10 1/2 x 3 1/2	T
21		NFS 7 1/2	5600	208	242		10000	B10.50/20	DB10.50/20	OwN SCH	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN TF	2F	H 7.20 45.6 9x3x4	T
22		T 7 1/2	5900	192	242		9680	B10.50/22	DB10.50/22	OwN SCH	6-4 1/2 x 4 1/2	OwN D	U5 No	OwN TG	2F	H 7.20 45.6 9x3x4	T
23		TE 8 1/2	6300	214	228		10020	B9.75/22	DB9.75/22	OwN SCH	6-4 1/2 x 4 1/2	BL 7351	U5 No	OwN CG	2F	H 7.20 45.6 10 1/2 x 3 1/2	T
24	(Eng. und seat) UD 3 1/2	3500	97	145			6740	P34x7	DP34x7	OwN SD	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN H & D	2F	H 6.21 39.3 8x3x4	T
25		UDF 3 1/2	3950	127	145		7655	B9.00/20	DB9.00/20	OwN SD	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN TE	2F	H 6.43 40.7 8x3x4	T
26		UN 4	4050	96	163		8635	B9.75/20	DB9.75/20	OwN SCH	6-4 1/2 x 4 1/2	OwN D	U5 No	OwN C & N	2F	H 7.20 45.6 8x3x4	T
27		UNF 5	4550	128	163		9200	B9.75/22	DB9.75/22	OwN SCH	6-4 1/2 x 4 1/2	OwN D	U5 No	OwN TF	2F	H 7.20 45.6 8x3x4	T
28		US 5	5300	109	109		9115	B9.75/22	DB9.75/22	OwN SCH	6-4 1/2 x 4 1/2	OwN T	U4 No	OwN CG & TG	2F	H 7.20 45.6 9x3x4	T
29		UT 6	5900	128	163		9660	B10.50/22	DB10.50/22	OwN SCH	6-4 1/2 x 4 1/2	OwN D	U5 No	OwN CG & TG	2F	H 7.20 45.6 9x3x4	T
30		U TE 8 1/2	6300	145	163		10525	B9.75/22	DB9.75/22	OwN SCH	6-4 1/2 x 4 1/2	OwN T	U4 A 3	OwN CG & TG	2F	H 7.20 45.6 10 1/2 x 3 1/2	T
31	Available	W-120 1 1/2	1245	Op	Op	11200	4000	B6.50/20	DB6.50/20	Wau BL	6-3 1/2 x 4 1/2	WG T9	U4 No	Tim 53200	SF	H 6.6 42.2 10x2 1/2 x 1 1/2	TX
32		W-170 2 1/2	1620	Op	Op	13400	4700	B7.50/20	DB7.50/20	Wau BL	6-3 1/2 x 4 1/2	WG T9	U4 No	Tim 54300	SF	R 6.8 43.5 10x2 1/2 x 1 1/2	TX
33		W-210 2 1/2	1720	Op	Op	13400	4800	B7.50/20	DB7.50/20	Wau BK	6-3 1/2 x 4 1/2	BL 234	U4 No	Tim 54300	SF	R 6.8 43.5 10x2 1/2 x 1 1/2	TX
34		W-240 3	1975	Op	Op	16300	5400	B8.25/20	DB8.25/20	Wau BK	6-3 1/2 x 4 1/2	BL 234	U4 No	Tim 56200	SF	R 7.4 47.4 12x2 1/2 x 1 1/2	TX
35		W-300 4	2750	Op	Op	20700	7000	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 4 1/2	Fu 5A-380	U5 No	Tim 58205	SF	R 7.8 54.6 12x2 1/2 x 1 1/2	TX
36		W-400 5	3750	Op	Op	25500	8200	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2 x 4 1/2	Fu 5A-530	U5 No	Tim 65720H	SF	R 8.5 55.6 14x3x4	TX
37	Biederman	10 1 1/2	895	130	157	6000	2800	B6.00/20	B6.00/20	Con 25A (16)	6-3 1/2 x 4 1/2	War	U4 No	Clas B373	BF	R 5.10 31.6 7x3x4	T
38		20 1 1/2	1195	157	170	8400	3200	B6.00/20	DB6.00/20	Wau 68L (16)	6-3 1/2 x 4 1/2	War	U4 No	Clas B373	BF	R 6.37 39.4 7x3x4	T
39		30 2	1280	157	170	11400	4100	B7.00/20	DB7.00/20	Wau 68L (16)	6-3 1/2 x 4 1/2	War	U4 No	Clas B373	BF	R 6.37 39.4 7x3x4	T
40		40 2 1/2	1700	180	200	16000	5400	B8.25/20	DB8.25/20	Wau 68L (16)	6-3 1/2 x 4 1/2	Clas	U5 No	Clas B613	BF	R 6.37 39.4 7x3x4	T
41		50 3	2400	180	200	20000	6450	B9.00/20	DB9.00/20	Wau 68L (16)	6-3 1/2 x 4 1/2	Clas	U5 No	Clas B805	BF	R 6.42 46.7 7 1/2 x 3 1/2	T
42		60 3	3150	180	210	20000	6820	B9.00/20	DB9.00/20	Lyc ASE (16)	6-3 1/2 x 4 1/2	BL	U5 No	Clas B805	BF	R 6.42 46.7 8x3x4	T
43		70 3 1/2	3600	157	210	24000	7530	B9.75/20	DB9.75/20	Her WXC3 (16)	6-4 1/2 x 4 1/2	BL	U5 No	Wls 1237	2F	R 8.00 58.7 8x3x4	T
44		80 4	4200	187	210	28000	8500	B10.50/20	DB10.50/20	Her X8 (16)	6-4 1/2 x 5 1/2	Ful	U5 No	Wls 1737	2F	R 8.94 65.1 10x3x4	T
45	Brookway	80 1 1/2-2	1185	149	168	10500	4035	B6.50/20	DB6.50/20	Con 26B	6-3 1/2 x 4 1/2	Wa T9	U4 No	Tim 53200H	SF	H 6.66 36.2 7 1/2 x 2 1/2 x 1 1/2	T
46		90 2 1/2-3	1485	149	186	12500	4480	B7.00/20	DB7.00/20	Con 28B	6-3 1/2 x 4 1/2	Wa T9	U4 No	Tim 54300H	SF	H 5.83 37.7 7 1/2 x 2 1/2 x 1 1/2	T
47		100 2 1/2-3	1800	180	200	15000	5125	B7.50/20	DB7.50/20	Con 28B	6-3 1/2 x 4 1/2	Fu	U5 No	Tim 54300H	SF	H 5.83 37.7 7 1/2 x 2 1/2 x 1 1/2	T
48		120 2 1/2-3 1/2	2090	156	188	15000	5800	B7.50/20	DB7.50/20	Con 30B	6-4 1/2 x 4 1/2	BL 314	U4 No	Tim 54300H	SF	H 5.83 37.7 7 1/2 x 2 1/2 x 1 1/2	T
49		140 2 1/2-3 1/2	2690	156	200	17500	6385	B8.25/20	DB8.25/20	Con 30B	6-4 1/2 x 4 1/2	BL 314	U4 Op	Wls 4916L	2F	R 6.66 43.7 5 1/2 x 3 1/2 x 1 1/2	T
50		150 2 1/2-3 1/2	2540	188	200	18500	6245	B8.25/20	DB8.25/20	Con 32							

NAME	Type	ENGINE DETAILS										FUEL SYST.	ELEC. TRICAL	FRONT AXLE	BRAKES		BODY MOUNTING DATA		SPRINGS											
		Line Number	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS				Service	Lining Area	Drum Material	Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	Auxiliary Type						
		1468	4.4	322	43.3	120-2200	175-2200	H	C	A-7-3/4	10%	CC	Ha	Zen	VDR	DR	F.B.L	Lo	Spi	Tim 27451	Ros	O41A	720	A	CD	172	102	33 1/2	42x3	56x4
		707	4.4	500	60	175-2200	175-2200	H	H	A-7-3/4	14%	CC	Ha	Zen	MDR	DR	dp.Lo	Lo	Spi	Tim 27451	Ros	O41A	720	A	CD	172	102	33 1/2	42x3	56x4
		248	5.0	150	27.3	65-2600	73-2200	L	G	C-7-3	10%	FP	No	Str	MAL	DR	D.B.L	Yo	Spi	Tim	Ros	L41H	380	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3
		339	4.7	225	38.4	73-2200	73-2200	L	G	C-7-3	10%	FP	No	Str	MAL	DR	D.B.L	Yo	Spi	Tim	Ros	L41HV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3
		339	4.7	225	38.4	73-2200	73-2200	L	G	C-7-3	10%	FP	No	Str	MAL	DR	D.B.L	Yo	Spi	Tim	Ros	L41HV	578	G	TX	106	Opt	31 1/2	40x2 1/2	62 1/2 x 2 1/2
		304	4.7	225	40.3	80-2200	80-2200	L	G	C-7-3	10%	FP	No	Str	MAL	DR	D.B.L	Yo	Spi	Shu	Ros	L41HV	658	G	TX	106	Opt	31 1/2	40x2 1/2	62 1/2 x 2 1/2
		529	4.4	335	51.9	115-2200	115-2200	L	G	C-7-3	15%	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu	Ros	W41A	847	G	TX	118	Opt	31 1/2	41x2 1/2	62 1/2 x 3
		428	4.4	280	45.9	93-2200	93-2200	L	G	C-7-3	15%	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu	Ros	L41HV	893	H	TD	92 1/2	Opt	31 1/2	41x2 1/2	62 1/2 x 3
		478	4.4	318	51.2	103-2200	103-2200	L	G	C-7-3	15%	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu	Ros	L41HV	893	H	TD	92 1/2	Opt	31 1/2	41x2 1/2	62 1/2 x 3
		529	4.4	335	51.2	115-2200	115-2200	L	G	C-7-3	15%	PC	Mo	Str	MAL	AL	D.Fu	Yo	Spi	Shu	Ros	L41HV	893	H	TD	92 1/2	Opt	31 1/2	41x2 1/2	62 1/2 x 3
		13	814	5.5	213	38.4	75-2400	L	G	C-7-3	12%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 31000	Ros	LO41DV	450	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		14	358	5.5	240	38.4	84-2500	L	G	C-7-3	12%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	450	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		15	358	5.5	240	38.4	84-2500	L	G	C-7-3	12%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		16	358	5.5	240	38.4	84-2500	L	G	C-7-3	12%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		17	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		18	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		19	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		20	453	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		21	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		22	453	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		23	453	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		24	358	5.5	240	38.4	84-2500	L	G	C-7-3	12%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		25	358	5.5	240	38.4	84-2500	L	G	C-7-3	12%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		26	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		27	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		28	404	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		29	453	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		30	453	5.1	271	43.4	94-2500	L	G	C-7-3	14%	FP	Mo	Str	MDR	DR	dp.Lo	GO	Spi	Tim 35000	Ros	LO41DV	519	c	21	88 1/2	60 1/2	34 1/2	40x2 1/2	54x3
		31	245	5.1	165	29.4	73-3000	L	G	A-7-2 1/2	10%	FP	No	Zen	MDR	DR	P.Lo	Ch	Blo	Tim 3000H	Ros	L41H	269	a	TX	Opt	Opt	32	42 1/2 x 2 1/2	58x2 1/2
		32	245	5.1	165	29.4	73-3000	L	G	A-7-2 1/2	10%	FP	No	Zen	MDR	DR	P.Lo	Ch	Blo	Tim 3000H	Ros	L41H	330	a	TX	Opt	Opt	32	42 1/2 x 2 1/2	58x2 1/2
		33	245	5.1	165	29.4	73-3000	L	G	A-7-2 1/2	10%	FP	No	Zen	MDR	DR	P.Lo	Ch	Blo	Tim 3000H	Ros	L41H	330	a	TX	Opt	Opt	32	42 1/2 x 2 1/2	58x2 1/2
		34	282	5.1	188	33.8	85-3200	L	G	A-7-2 1/2	10%	FP	Wa	Zen	MDR	DR	P.B.L	Ch	Blo	Tim 3300H	Ros	L41H	330	a	TX	Opt	Opt	32	42 1/2 x 2 1/2	58x2 1/2
		35	358	5.1	254	38.4	110-2800	L	G	A-7-2 1/2	12%	FP	Wa	Ma	MDR	DR	P.B.B	Ch	Blo	Tim 3500H	Ros	L41H	376	a	TX	Opt	Opt	32	42 1/2 x 2 1/2	58x2 1/2
		36	462	5.0	324	45.9	125-2600	L	G	A-7-3	13%	FP	Wa	Ma	MDR	DR	P.B.B	Ch	Blo	Tim 3500H	Ros	L41HV	462	E	FD	Opt	Opt	32	42 1/2 x 2 1/2	58x2 1/2
		37	215	5.0	142	27.3	72-3000	L	G	A-7-2 1/2	6%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 27451	Ros	L41H	312	G	TX	89	54	34	47x2 1/2	60x2 1/2
		38	245	5.1	162	29.4	75-2800	L	G	A-7-2 1/2	10%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 3000H	Ros	L41H	312	G	TX	144	82	32	47x2 1/2	60x2 1/2
		39	245	5.1	162	29.4	75-2800	L	G	A-7-2 1/2	10%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 3000H	Ros	L41H	312	G	TX	144	82	32	47x2 1/2	60x2 1/2
		40	282	5.1	190	33.8	84-2800	L	G	A-7-2 1/2	10%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 3000H	Ros	L41H	312	G	TX	172	105	32	47x2 1/2	60x2 1/2
		41	282	5.1	190	33.8	84-2800	L	G	A-7-2 1/2	10%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 3000H	Ros	L41H	312	G	TX	172	105	32	47x2 1/2	60x2 1/2
		42	282	5.1	190	33.8	84-2800	L	G	A-7-2 1/2	10%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 3000H	Ros	L41H	312	G	TX	172	105	32	47x2 1/2	60x2 1/2
		43	282	5.1	190	33.8	84-2800	L	G	A-7-2 1/2	10%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 3000H	Ros	L41H	312	G	TX	172	105	32	47x2 1/2	60x2 1/2
		44	361	5.0	240	44.0	98-2500	L	G	A-7-2 1/2	12%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 35120	Ros	W41A	616	G	TX	110	76	34	47x2 1/2	60x3
		45	500	5.0	330	48.6	110-2200	L	G	A-7-3	12%	CC	Mo	Zen	MDR	DR	P.B.B	Pe	MM	Tim 26450	Ros	W41A	616	G	TX	154	103	34	47x2 1/2	60x3
		46	514	4.9	142	27.3	73-3100	L	G	A-7-2 1/2	10%	CC	No	Zen	MAL	AL	P.LI	GO	Spi	Col 5500A8	Ros	L41H	248	G	TX	111	65	34	37x2 1/2	52x2 1/2
		47	488	4.9	170	27.3	78-3100	L	G	A-7-2 1/2	10%	CC	No	Zen	MAL	AL	P.LI	GO	Spi	Col 5500A9	Ros	L41H	365	G	TX	111	65	34	37x2 1/2	52x2 1/2
		48	248	4.9	170	27.3	78-3100	L	G	A-7-2 1/2	10%	CC	No	Zen	MAL	AL	P.LI	GO	Spi	Col 5500A7	Ros	L41H	365	G	TX	108	69	34	40x2 1/2	54x3
		49	311	4.2	196	38.4	73-2400	H	C	N-7-2 1/2	13%	CC	KP	Zen	MAL	AL	D.B.L	GO	Spi	Col 5500A7	Ros	L41HV	365	G	TX	108	69	34	40x2 1/2	54x3
		50	360	4.5	240	48.0	90-2500	L	G	N-7-2 1/2	13%	CC	KP	Zen	MAL	AL	P.LI	GO	Spi	Col 5500A7	Ros	L41HV	365	G	TX	108	69	34	40x2 1/2	54x3
		51	311	4.2	196	38.4	73-2400	H	C	N-7-2 1/2	13%	CC	KP	Zen	MAL	AL	D.B.L	GO	Spi	Shu 15582B13	Ros	L41HV	407	G	TX	142	83	34	40x2 1/2	54x3
		52	360	4.5	240	48.0	90-2500	L	G	N-7-2 1/2	13%	CC	KP	Zen	MAL	AL	P.LI	GO	Spi	Shu 15582B13	Ros	L41HV	407	G</						

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS				FRAME								
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION	REAR AXLE		GEAR RATIOS	Side Rail Dimensions	Type				
										Make and Model	No. of Cylinders Bore and Stroke		Make and Model	Location and Forward Speeds				Aux. Location and Speeds	Make and Model	Gear and Type	In High	In Low
1	Dodge Bros. K221	1 1/2	895	140	7800	2710	B7.00/20	B7.00/20	Own	6-3 1/2 x 4 1/2	Own	U5	No Own	SF	H 5.66	40.08	8 1/2 x 2 1/2	C			
2	(Concluded) H30	1 1/2	4900	131	157	8400	2612	B6.00/20	P32x6	Own	6-3 1/2 x 4 1/2	Own	U4	No Own	SF	H 5.85	37.4	6 1/2 x 2 1/2	C		
3	K30	1 1/2	560	131	8400	2667	B6.00/20	P32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 4.87	31.2	6 1/2 x 2 1/2	C			
4	KD-30	1 1/2	560	136	161	8400	2612	B6.00/20	P32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 4.87	31.2	6 1/2 x 2 1/2	C		
5	K32	1 1/2	560	136	161	10500	2885	B6.00/20	P32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 5.66	36.2	7 1/2 x 2 1/2	C		
6	KD32	1 1/2	560	136	161	10500	2885	B6.00/20	P32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 5.66	36.2	7 1/2 x 2 1/2	C		
7	KS32	1 1/2	610	136	161	10500	2866	B6.00/20	P32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 5.66	36.2	7 1/2 x 2 1/2	C		
8	H33	1 1/2	795	136	165	11000	3350	B7.00/20	DB7.00/20	Own	6-3 1/2 x 4 1/2	Own	U4	No Own	SF	H 6.37	40.8	8 1/2 x 2 1/2	C		
9	K35	1 1/2	895	140	169	12500	3580	B6.50/20	DB6.50/20	Own	6-3 1/2 x 4 1/2	Own	U5	Op Own	SF	H 6.33	44.7	8 1/2 x 2 1/2	C		
10	H43	2 1/2	795	136	165	11000	3350	B7.00/20	DB7.00/20	Own	6-3 1/2 x 4 1/2	Own	U5	No Own	SF	H 6.37	40.8	7 1/2 x 2 1/2	C		
11	K45	2 1/2	895	140	169	12500	3675	B7.00/20	DB7.00/20	Own	6-3 1/2 x 4 1/2	Own	U5	Op Own	SF	H 6.33	44.7	8 1/2 x 2 1/2	C		
12	F40	2 1/2	1995	150	190	16000	5173	B6.50/20	DB6.50/20	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 6.37	43.7	9 1/2 x 2 1/2	C		
13	K50	2 1/2	1995	150	190	19000	5344	P32x6	DP32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 6.37	43.7	9 1/2 x 2 1/2	C		
14	(5) F-61	3 1/2	2575	170	195	20000	5759	P32x6	DP32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 7.12	48.8	10 1/2 x 2 1/2	C		
15	(5) K-71	3 1/2	2575	170	195	22000	5789	P32x6	DP32x6	Own	6-3 1/2 x 4 1/2	Own	U4	Op Own	SF	H 7.12	48.8	10 1/2 x 2 1/2	C		
16	G-70	3 1/2	5250	146	220	25000	7640	B9.75/20	DB9.75/20	Own	8-3 1/2 x 5	Own	U5	Op Own	SF	H 7.71	62.7	10 1/2 x 3 1/2	C		
17	Duplex	S3	160	Op	15000	6000	B8.25/20	DB8.25/20	Bud K325	6-3 1/2 x 4 1/2	BL 2352	U5	No Tim	WF	H 6.75	36.2	6 1/2 x 3 1/2	C			
18	SAC4	S3	172	Op	18000	7400	B9.75/20	DB9.75/20	Bud K428	6-4 1/2 x 4 1/2	BL 3353	U5	No Tim	WF	H 8.50	81.0	7 1/2 x 3 1/2	C			
19	K5	S3	172	Op	21000	8000	B10.50/20	DB10.50/20	Bud L525	6-4 1/2 x 4 1/2	BL 5351	U5	No Tim	WF	H 8.50	81.0	7 1/2 x 3 1/2	C			
20	M5-7	S3	168	Op	28000	10000	P34x7	DP34x7	Bud GL6	6-4 1/2 x 4 1/2	BL 70	A7	No Tim	WF	R Opt	Opt	9 1/2 x 3 1/2	C			
21	Esco	234	2860	165	205	15000	5900	B7.50/20	DB7.50/20	Con E603	6-4 1/2 x 4 1/2	CI 105R	U5	No Cla	B642	BF	H 5.75	40.7	6 1/2 x 3 1/2	C	
22	Fageol	102	1350	141	172	11200	4000	B6.00/20	DB6.00/20	Wau ZK	6-3 1/2 x 4 1/2	WG T9	U4	No Tim	53200H	BF	H 5.66	36.2	6 1/2 x 3 1/2	C	
23	106BK	1 1/2	1700	161	195	12000	5300	B6.50/20	DB6.50/20	Wau 6BK	6-3 1/2 x 4 1/2	WG T9	U4	No Tim	53200H	BF	H 5.66	36.2	6 1/2 x 3 1/2	C	
24	106RA	1 1/2	1825	161	195	12700	5400	B6.50/20	DB6.50/20	Wau 6BK	6-3 1/2 x 4 1/2	WG T9	U4	No Tim	54200H	BF	H 5.83	37.3	6 1/2 x 3 1/2	C	
25	135HP	2 1/2	2250	161	195	13400	5800	B7.50/20	DB7.50/20	Wau 6-90	6-3 1/2 x 4 1/2	BL 234	U4	No Tim	54200H	BF	H 6.8	43.6	6 1/2 x 3 1/2	C	
26	135RA	2 1/2	2400	161	195	15000	6000	B7.50/20	DB7.50/20	Wau 6-90	6-3 1/2 x 4 1/2	BL 234	U4	No Tim	56200H	BF	H 7.4	47.4	6 1/2 x 3 1/2	C	
27	135SC	2 1/2	2150	161	210	14700	5100	B7.50/20	DB7.50/20	Wau 6-90	6-3 1/2 x 4 1/2	BL 234	U4	No Tim	54200H	BF	H 6.8	43.6	6 1/2 x 3 1/2	C	
28	135BK	2 1/2	2050	161	195	13400	5700	B7.50/20	DB7.50/20	Wau 6BK	6-3 1/2 x 4 1/2	WG T9	U4	No Tim	54200H	BF	H 5.83	37.3	6 1/2 x 3 1/2	C	
29	250HP	2 1/2	3000	178	196	16300	7200	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/2 x 4 1/2	BL 524	U4	No Tim	56200H	BF	H 7.4	53.9	8 1/2 x 3 1/2	C	
30	250MS	2 1/2	2700	178	196	16300	6875	B8.25/20	DB8.25/20	Wau 6MS	6-4 1/2 x 4 1/2	BL 334	U4	No Tim	56200H	BF	H 7.4	53.9	8 1/2 x 3 1/2	C	
31	250MK	2 1/2	2750	178	196	16300	6900	B8.25/20	DB8.25/20	Wau 6MK	6-4 1/2 x 4 1/2	BL 334	U4	No Tim	56200H	BF	H 7.4	53.9	8 1/2 x 3 1/2	C	
32	250RA	2 1/2	3150	178	196	19500	7400	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/2 x 4 1/2	BL 524	U4	No Tim	58200H	BF	H 7.8	56.8	8 1/2 x 3 1/2	C	
33	250SC	2 1/2	3250	178	230	17500	6900	B8.25/20	DB8.25/20	Wau 6-110	6-4 1/2 x 4 1/2	BL 524	U4	No Tim	56200H	BF	H 7.4	53.9	8 1/2 x 3 1/2	C	
34	300HP	3 1/2	3500	178	196	20700	7900	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 4 1/2	BL 524	U4	No Tim	58200H	BF	H 7.8	56.8	8 1/2 x 3 1/2	C	
35	300RA	3 1/2	3775	178	196	25300	8400	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 4 1/2	BL 524	U4	No Tim	65725H	WF	H 7.8	56.8	8 1/2 x 3 1/2	C	
36	370HP	5-6	5000	182	200	25300	9950	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2 x 5 1/2	BL 734	U4	A3	Tim	65725H	WF	H 5.7	120.7	7 1/2 x 3 1/2	C
37	370RB	5-6	4850	182	200	25300	9750	B9.75/20	DB9.75/20	Wau 6SRK	6-4 1/2 x 5 1/2	BL 734	U4	A3	Tim	65725H	WF	H 5.7	120.7	7 1/2 x 3 1/2	C
38	370RA	5-6	5500	182	200	31000	10200	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2 x 5 1/2	BL 734	U4	A3	Tim	66720DH	WF	H 5.5	116.7	7 1/2 x 3 1/2	C
39	470HP	6-7	5500	182	200	33500	10350	B9.75/20	DB9.75/20	Wau 6-125	6-4 1/2 x 5 1/2	BL 734	U4	A3	Tim	66720DH	WF	H 5.5	116.7	7 1/2 x 3 1/2	C
40	Federal	DM	975	120	120	8000	3050	B6.00/20	P32x6	Con W10	4-3 1/2 x 4 1/2	WG T9	U4	No Cla	B374	SF	H 5.67	38.2	6 1/2 x 2 1/2	C	
41	15X	1 1/2	745	137	174	10000	3500	B6.00/20	P32x6	Her JXA	4-3 1/2 x 4 1/2	WG T9	U4	No Cla	B374	SF	H 6.38	40.8	7 1/2 x 2 1/2	C	
42	18X	2	845	137	187	11000	3800	P6.50/20	DB6.50/20	Her JXA	4-3 1/2 x 4 1/2	WG T9	U4	No Cla	B484	SF	H 6.88	44.0	8 1/2 x 2 1/2	C	
43	20X	2	1065	137	187	12000	3900	B6.50/20	DB6.50/20	Her JXB	4-3 1/2 x 4 1/2	WG T9	U4	No Cla	54300H	SF	H 6.80	43.5	8 1/2 x 2 1/2	C	
44	25X	2 1/2	1325	137	201	14000	4500	B7.00/20	DB7.00/20	Her JXC	4-3 1/2 x 4 1/2	Cla R115	U5	No Cla	B640	SF	H 6.38	45.2	8 1/2 x 2 1/2	C	
45	T3W	2 1/2	1595	148	185	14000	5110	P32x6	P36x8	Wau V	4-4 1/2	Own 7754	A4	No Tim	64603H	WF	H 7.25	36.2	6 1/2 x 3 1/2	C	
46	T3WFA	2 1/2	1795	148	185	16000	5400	P32x6	DP32x6	Wau V	4-4 1/2	Own 7754	A4	No Tim	65001H	WF	H 8.75	43.8	6 1/2 x 3 1/2	C	
47	40R	3 1/2	2095	157	227	19000	6050	B8.25/20	DB8.25/20	Wau 6MS	6-4 1/2 x 4 1/2	Cla R114	A4	No Cla	B642	SF	H 6.43	45.5	11 1/2 x 3 1/2	C	
48	40R	3 1/2																			

Type	ENGINE DETAILS										FUEL SYST.	ELEC-TRICAL	FRONT AXLE	BRAKES		BODY MOUNT-ING DATA		SPRINGS		Auxiliary Type			
	Line Number	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS				Service	Lining Area	Drum Material	Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle		Width of Frame	Front	Rear
	1242	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1243	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1244	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1245	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1246	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1247	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1248	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1249	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1250	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1251	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1252	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1253	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1254	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1255	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1256	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1257	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1258	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1259	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1260	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1261	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1262	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1263	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1264	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1265	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1266	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1267	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1268	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1269	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1270	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1271	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1272	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1273	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1274	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1275	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1276	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1277	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1278	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1279	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1280	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1281	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1282	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1283	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1284	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1285	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1286	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1287	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1288	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1289	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1290	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1291	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1292	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1293	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1294	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1295	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1296	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1297	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1298	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1299	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1300	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1301	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1302	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1303	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1304	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1305	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1306	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1307	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1308	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1309	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1310	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1311	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
	1312	5.4	170	27.3	85	3200	L	L	L	L	L	L	L	L	L	L	L	L	L				

Line Number	MAKE AND MODEL	GENERAL (See Keynote)				TIRE SIZE		MAJOR UNITS				FRAME							
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION	REAR AXLE		Side Rail Dimensions	Type			
										Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Make and Model			Gear and Type	Drive and Torque	GEAR RATIOS	In High	In Low
1	G.P. (7) 635-2-3	1445	154	160	15000	3650	B7.00/20	DB7.00/20	Lyc SB	6-3 1/2 x 4 1/2	Fu MKU	U4	No	Tim 53200H	SF	H 6.3	42.9	99x 1 1/2 x 3 1/2	TL
2	..... (7) 645-2 1/2-3 1/2	2425	154	175	18000	5775	B8.25/20	DB8.25/20	Wa 6-90-255	6-3 1/2 x 4 1/2	Fu SA350	U5	No	Tim 58200H	SF	H 6.5	47.8	103 1/2 x 3 1/2 x 3 1/2	TL
3	..... (7) 665-3 1/2-5	4170	162	179	20000	7600	B9.00/20	DB9.00/20	Wa 6-110-358	6-4 1/2 x 4 1/2	Fu SA350	U5	No	Tim 58200H	SF	H 6.5	50.0	123 1/2 x 3 1/2 x 3 1/2	TL
4	Hendrickson..... 158-2 1/2	5445	162	179	25000	9450	B9.75/20	DB9.75/20	Wa 6-125-462	6-4 1/2 x 5 1/2	Fu SA530	U5	No	Tim 58200H	SF	H 6.5	61.0	143 1/2 x 3 1/2 x 3 1/2	TL
5	..... 198-3	2600	Op	Op	15000	6000	B8.25/20	DB8.25/20	Wau 6-90	6-3 1/2 x 4 1/2	Fu SA350	U5	No	Tim 54200H	SF	H Opt	Opt	8x3 1/2 x 3 1/2	CC
6	..... 248-4	3100	Op	Op	19000	6500	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 4 1/2	Fu SA350	U5	No	Tim 58200H	SF	H Opt	Opt	8x3 1/2 x 3 1/2	CC
7	..... 328-5	3600	Op	Op	24000	8200	B9.75/20	DB9.75/20	Wau 6-110	6-4 1/2 x 4 1/2	Fu SA350	U5	No	Tim 58200H	SF	H Opt	Opt	8x3 1/2 x 3 1/2	CC
8	Hug..... 191 1/2	4200	Op	Op	32000	10600	B9.75/20	DB9.75/20	Wau 125	6-4 1/2 x 5 1/2	Fu SA530	U5	No	Tim 75733H	w/2	R Opt	Opt	8x3 1/2 x 3 1/2	P
9	..... 232	1500	118	118	12600	5800	B7.50/20	DB7.50/20	Wau 6BL	6-3 1/2 x 4 1/2	Cla B312	U4	No	Cla B642	SF	H 7.16	47.0	82 1/2 x 3 1/2 x 3 1/2	T
10	..... 238 1/2	1785	146	191	12310	5510	B7.00/20	DB7.00/20	Bud H298	6-3 1/2 x 4 1/2	Fu MLU	U4	No	Cla B611	SF	H 5.66	36.0	8x3 1/2 x 3 1/2	T
11	..... 238 1/2	2175	146	201	15350	5660	B8.25/20	DB8.25/20	Bud H298	6-3 1/2 x 4 1/2	Fu MLU	U4	No	Cla B642	SF	H 6.42	40.8	8x3 1/2 x 3 1/2	T
12	..... 418	2175	146	201	15600	6400	B8.25/20	DB8.25/20	Bud H298	6-3 1/2 x 4 1/2	Fu MLU	U4	No	Cla B805	SF	H 6.37	40.5	8x3 1/2 x 3 1/2	T
13	..... 423K	5070	158	158	18165	8500	B9.75/20	B2 75/20	Bud K428	6-4 1/2 x 4 1/2	Fu MRUAY	U4	A 3	Wls 1237H	SF	H 8.95	119	8x3 1/2 x 3 1/2	T
14	..... 703	2393	146	201	16500	7300	B9.00/20	DB9.00/20	Bud K369	6-4 1/2 x 4 1/2	BL 51-5	U5	No	Cla B805	SF	H 7.12	42.0	8x3 1/2 x 3 1/2	T
15	..... 87K 3 1/2	3435	122	122	19500	7535	B9.00/20	DB9.00/20	Bud K369	6-4 1/2 x 4 1/2	Fu SA380	U5	No	Wls 7000Q	SF	H 9.14	64.0	6x3 1/2 x 3 1/2	I
16	..... 43 3/4	4300	128	128	22400	7600	B9.75/20	DB9.75/20	Bud K428	6-4 1/2 x 4 1/2	Fu MHOQ	A 8	No	Wls 1237Q	2F	H 8.95	79.0	7x3 1/2 x 3 1/2	I
17	..... 87Q 5/8	3380	146	201	22500	7300	B9.75/20	DB9.75/20	Bud K428	6-4 1/2 x 4 1/2	Fu SA530	U5	No	Wls 1237H	2F	H 8.95	62.0	8x3 1/2 x 3 1/2	T
18	..... 431 1/2	4875	144	144	27000	9805	B10.50/20	DB10.50/20	Bud K428	6-4 1/2 x 4 1/2	Fu SA530	A 5	A 2	Wls 1737K	2F	H 9.16	69.0	8x4 1/2 x 3 1/2	T
19	..... 431 1/2	3850	146	201	28105	8905	B9.75/20	DB9.75/20	Bud L525	6-4 1/2 x 5 1/2	Fu SA530	U5	No	Wls 1737KW	2F	H 9.16	64.0	8x3 1/2 x 3 1/2	T
20	..... 971 1/2	5815	144	144	35620	10810	B10.50/20	DB10.50/20	Bud L525	6-4 1/2 x 5 1/2	Fu SA530	U5	A 2	Wls 19027	SF	H 11.1	178	8x4 1/2 x 3 1/2	T
21	Indiana..... 85 1/2	1025	141	186	10000	3950	B6.50/20	DB6.50/20	Her JXB	6-3 1/2 x 4 1/2	BL 124	U4	No	Tim 53200H	SF	H 5.66	35.1	7 1/2 x 2 1/2 x 3 1/2	T
22	..... 952	1195	141	186	10000	4400	P32x6	P32x6	Her JXB	6-3 1/2 x 4 1/2	BL 224	U4	No	Tim 54300H	SF	H 5.85	36.2	7 1/2 x 2 1/2 x 3 1/2	T
23	..... 95DR 2 1/2	1275	141	186	15000	4650	B7.50/20	DB7.50/20	Her JXC	6-3 1/2 x 4 1/2	BL 224	U4	Op	Wls 4916L	2F	H 6.66	41.2	7 1/2 x 2 1/2 x 3 1/2	T
24	..... 17A 3	2300	156	212	17000	6300	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	U4	A 3	Tim 58205H	SF	H 6.83	43.0	8x3 1/2 x 3 1/2	T
25	..... 17ADR 3	2475	156	212	18000	6350	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	U4	Op	Wls 70000H	2F	H 7.06	44.5	8x3 1/2 x 3 1/2	T
26	..... 173	2675	170	224	19000	6700	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	U4	Op	Wls 70000	2F	H 6.28	38.8	8x3 1/2 x 3 1/2	T
27	..... 17DR 3	2675	170	224	19000	6700	B8.25/20	DB8.25/20	Her WXC	6-4 1/2 x 4 1/2	BL 3341	U4	Op	Wls 70000	2F	H 6.28	38.8	8x3 1/2 x 3 1/2	T
28	..... 19DR 3 1/2	3400	170	224	22000	7600	B9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 4 1/2	BL 524	U4	Op	Wls 1237H	2F	H 7.2	52.8	8x3 1/2 x 3 1/2	T
29	..... 43DR 4	4300	170	224	25000	8000	B9.75/20	DB9.75/20	Her RXB	6-4 1/2 x 4 1/2	BL 524	U4	Op	Wls 1627KH	2F	H 6.96	50.7	8x3 1/2 x 3 1/2	T
30	..... 45DR 5	4800	170	224	25000	8700	B9.75/20	DB9.75/20	Her RXC	6-4 1/2 x 4 1/2	BL 534	U4	Op	Wls 1737H	2F	H 7.14	45.0	8x3 1/2 x 3 1/2	T
31	..... 47DR 5-7	7500	188	234	28000	10500	B10.50/20	DB10.50/20	Cum 6H Die	6-4 1/2 x 6	BL 7351	A 5	No	Wls 1910W	2F	H 7.16	45.0	8x3 1/2 x 3 1/2	T
32	International (8) D1 1/2	360	113	113	4200	2180	B5.25/18	B5.25/18	Own D	6-3 1/2 x 4 1/2	Own D	U3	No	Own D-55	SF	H 4.18	12.7	5 1/2 x 2 1/2 x 3 1/2	T
33	(A)..... M2 1/2	3180	B6.50/20	7000	3180	B6.50/20	B6.50/20	Wau XAH	4-3 1/2 x 4 1/2	Own H-4-A	U4	No	Own 713	SF	H 6.16	39.5	5 1/2 x 2 1/2 x 3 1/2	D	
34	..... A2 1/2	615	136	160	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3 1/2 x 4 1/2	Own H-4-A	U4	No	Own 708	SF	H 6.16	39.5	5 1/2 x 2 1/2 x 3 1/2	T
35	..... B2 1/2	615	136	160	8000	2945	B6.00/20	B6.00/20	Wau XAH	4-3 1/2 x 4 1/2	Own H-4-A	U4	No	Own 708	SF	H 6.16	39.5	5 1/2 x 2 1/2 x 3 1/2	T
36	..... A3 1/2	695	136	160	10000	3572	P30x5	P32x6	Lyc SAH	6-3 1/2 x 4 1/2	Own H-4-A	U4	No	Own 710	SF	H 5.28	33.8	7x2 1/2 x 3 1/2	T
37	..... A3 1/2	970	136	160	10100	3600	B6.50/20	DB6.50/20	Lyc SAH	6-3 1/2 x 4 1/2	WG T7	U4	No	Own 710	SF	H 5.28	33.8	7x2 1/2 x 3 1/2	T
38	..... AL3 1/2	895	138	164	10000	4032	B6.00/20	DB6.00/20	Lyc 48LH	6-3 1/2 x 4 1/2	WG T7	U4	No	Own 800	SF	H 5.60	42.9	6 1/2 x 2 1/2 x 3 1/2	T
39	..... B2 1/2	695	136	160	10000	3572	P30x5	P32x6	Own FAB-2	6-3 1/2 x 4 1/2	Own H-4-A	U4	No	Own 710	SF	H 5.28	33.8	7x2 1/2 x 3 1/2	T
40	..... B4 2	1045	145	185	12750	4055	B6.50/20	DB6.50/20	Own FAB-3	6-3 1/2 x 4 1/2	Own H-4-A	U4	No	Own 710	SF	H 5.60	42.9	6 1/2 x 2 1/2 x 3 1/2	T
41	..... A4 2	1625	145	185	15750	5221	P32x6	DP32x6	Own FBB	6-3 1/2 x 4 1/2	Own H-5	U5	No	Own 902	SF	H 6.50	47.8	7x3 1/2 x 3 1/2	T
42	..... A5 3	2100	156	210	18750	5895	P34x7	DP34x7	Own FBB	6-3 1/2 x 4 1/2	Own H-5	U5	No	Own 102	SF	H 7.16	47.8	8x3 1/2 x 3 1/2	T
43	..... A6 3	2450	156	210	20850	6120	P34x7	DP34x7	Own FBB	6-3 1/2 x 4 1/2	Own H-5	U5	No	Own 1150	2F	H 8.5	76.8	8x3 1/2 x 3 1/2	T
44	..... W2 3 1/2	3300	148	200	24000	8450	P36x8	DP36x8	Has 151	4-4 1/2 x 5 1/2	Own H-6	U5	No	Own 1200	2F	H 6.85	38.9	9x3 1/2 x 3 1/2	T
45	..... W3 5	4350	164	235	28000	11500	S340x12	S400x12	Has 152	4-4 1/2 x 5 1/2	Own H-6	U5	No	Own 1300	2F	H 7.85	70.5	8x3 1/2 x 3 1/2	T
46 W5 7 1/2	6200	166	225	37000	11500	B9.75/20	DB9.75/20	Own FBB	6-3 1/2 x 4 1/2	Own H-7	U5	No	Own 1300	2F	H 7.85	70.5	8x3 1/2 x 3 1/2	T
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[illegible]

Line Number	MAKE AND MODEL	GENERAL (See Keynote)				TIRE SIZE		MAJOR UNITS				FRAME								
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	ENGINE	TRANSMISSION	REAR AXLE	GEAR RATIOS	Side Rail Dimensions	Type							
								Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Make and Model	Gear and Type	Drive and Torque	In High	In Low				
1	Omort	20-2	1095	131	1210	10000	3725	B6.00/20	DB6.00/20	Her JXA	6-3 1/2 x 4 1/2	WG T9	U4	No	Tim 53200H	BF	H 6.20	39.6	6x2 1/2 x 4 1/2	L
2	250	2 1/2	2650	130	1600	6100	3725	B6.00/20	DB6.00/20	Her WXB	6-3 1/2 x 4 1/2	Fu MGU	U4	No	Wls 6787L	2F	R 6.41	41.6	6x3 1/2 x 4 1/2	L
3	3250	3 1/2	3250	134	1800	6600	3725	B6.00/20	DB6.00/20	Her WXB	6-3 1/2 x 4 1/2	Fu MGOG	A4	U2	Wls 8817L	2F	R 7.93	65.0	6x3 1/2 x 4 1/2	L
4	3530	3 1/2	3530	150	2100	7600	3725	B6.00/20	DB6.00/20	Her WXC	6-4 x 4 1/2	Fu MGOG	A4	U2	Wls 1567H	2F	R 9.11	74.7	6x3 1/2 x 4 1/2	L
5	Pierce-Arrow 138385	2-2 1/2	2500	160	200	13000	5750	B8.25/20	DB8.25/20	Own 8	6-3 1/2 x 5	Co RU48L	U4	No	Tim 56200	SF	R 5.28	32.6	7 1/2 x 3 1/2 x 4 1/2	C
6	15T298	3-3 1/2	1950	150	200	15000	5725	B8.25/20	DB8.25/20	Her WXB	6-3 1/2 x 4 1/2	Clu 108B	U4	Op	Tim 56200	SF	R 6.16	40.2	7 1/2 x 3 1/2 x 4 1/2	C
7	17T361	3-4	2350	150	200	17000	5725	B9.00/20	DB9.00/20	Her WXC2	6-4 1/2 x 4 1/2	Co RU48L	U4	Op	Tim 56200	SF	R 6.83	42.2	7 1/2 x 3 1/2 x 4 1/2	C
8	18W361	3-4 1/2	3000	150	220	18000	5725	B9.00/20	DB9.00/20	Her WXC2	6-4 1/2 x 4 1/2	Co RU48L	U4	Op	Tim 65720	WF	R 6.84	42.2	8 1/2 x 3 1/2 x 4 1/2	C
9	19R479	3-4 1/2	3600	150	220	19000	7850	B9.00/20	DB9.00/20	Her YXC3	6-4 1/2 x 4 1/2	Co TNU	U4	Op	Tim 65720	WF	R 7.4	42.2	8 1/2 x 3 1/2 x 4 1/2	C
10	24X479	5-6	4150	150	200	24000	9250	B10.50/20	DB10.50/20	Her YXC3	6-4 1/2 x 4 1/2	Co TNU	U4	Op	Tim 66720	WF	R 7.6	40.2	9 1/2 x 2 1/2 x 4 1/2	C
11	28M611	6-7	5400	160	200	28000	11600	B10.50/24	DB10.50/24	Her GXA	6-4 1/2 x 5 1/2	Own	U4	Op	Own	WF	R 10.5	52.5	9 1/2 x 2 1/2 x 4 1/2	C
12	Reo (A)	1 1/2	530	130	130	5500	2805	B6.50/18	B6.50/18	Own	6-3 1/2 x 5	Own	U3	Own	BF	H 4.9	16.1	7 1/2 x 2 1/2 x 4 1/2	C	
13	1B (1D)	1 1/2	595	140	164	10500	3260	B6.50/20	DB6.50/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H 5.28	34.8	7 1/2 x 2 1/2 x 4 1/2	C
14	2B-2D	2 1/2	845	142	166	12500	3865	B6.50/20	DB6.50/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H 5.83	38.4	7 1/2 x 2 1/2 x 4 1/2	C
15	2H (2J 2K)	2 1/2	1245	142	184	15000	4475	B7.00/20	DB7.00/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H 6.6	42.9	7 1/2 x 2 1/2 x 4 1/2	C
16	3H (3J 3K 3L)	3	1795	170	205	17500	5125	B7.50/20	DB7.50/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H 7.14	46.6	7 1/2 x 2 1/2 x 4 1/2	C
17	4H 4J 4K 4M	4	2595	170	205	20000	6280	B9.00/20	DB9.00/20	Own	6-3 1/2 x 5	Own	U4	O2	Own	SF	H 8.14	40.5	10 1/2 x 3 1/2 x 4 1/2	C
18	Schacht	10H 1 1/2	1295	166	199	11500	4850	B6.50/20	DB6.50/20	Con 20C	6-3 1/2 x 4 1/2	BL 35	U4	No	Tim	BF	H 5.83	31.2	6x3 1/2 x 4 1/2	C
19	15HA	2 1/2	1735	160	199	13000	5200	B8.25/20	DB8.25/20	Con 20C	6-3 1/2 x 4 1/2	BL 35	U4	No	Tim	BF	H 6.06	38.5	6x3 1/2 x 4 1/2	C
20	20HA	2 1/2	2185	160	199	15300	5450	B8.25/20	DB8.25/20	Her WXC	6-4 x 4 1/2	Own	U5	No	Tim	BF	R 6.06	38.5	6x3 1/2 x 4 1/2	C
21	25HA	3-4	2895	146	213	19500	5750	B9.00/20	DB9.00/20	Her WXC	6-4 x 4 1/2	Fu 5A-38	U5	No	Tim	BF	R 6.02	39.2	7x3 1/2 x 4 1/2	C
22	28HA	4-5 1/2	3050	146	227	23000	6000	B9.75/20	DB9.75/20	Her WXC	6-4 x 4 1/2	Fu 5A-38	U5	No	Tim	BF	R 6.83	43.8	7x3 1/2 x 4 1/2	C
23	32HA	5-6	3295	150	244	25000	6800	B9.75/20	DB9.75/20	Her WXC	6-4 x 4 1/2	Fu 5A-38	U5	No	Tim	BF	R 7.4	46.2	7x3 1/2 x 4 1/2	C
24	35HA	5-7	3725	146	227	24000	7400	B9.75/20	DB9.75/20	Her WXC2	6-4 1/2 x 4 1/2	Fu 5A-38	U5	No	Own	2F	R 8.00	52.0	8 1/2 x 3 1/2 x 4 1/2	C
25	40H 5-7	7	4295	156	239	25500	7600	B9.75/20	DB9.75/20	Her YXC	6-4 1/2 x 4 1/2	Fu 5A-53	U5	No	Own	2F	R 7.07	49.7	8 1/2 x 3 1/2 x 4 1/2	C
26	40HB 7-9	9	4695	156	239	29500	7750	B10.50/20	DB10.50/20	Her YXC	6-4 1/2 x 4 1/2	Fu 5A-53	U5	No	Wls	2F	R 7.07	49.7	8 1/2 x 3 1/2 x 4 1/2	C
27	66HA 8-11	11	5895	154	251	35000	9820	B10.50/24	DB10.50/24	Her YXC	6-4 1/2 x 4 1/2	Fu 5A-53	U5	No	Wls	2F	R 7.07	49.7	8 1/2 x 3 1/2 x 4 1/2	C
28	(T) TRD 10	10	4150	150	174	35000	7100	B9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 4 1/2	Fu 5A-53	U5	No	Own	2F	R 7.8	56.8	7x3 1/2 x 4 1/2	C
29	(T) TRD 12	12	4350	150	174	39000	7226	B9.75/20	DB9.75/20	Her YXC3	6-4 1/2 x 4 1/2	Fu 5A-53	U5	No	Own	2F	R 7.8	56.8	7x3 1/2 x 4 1/2	C
30	(T) TRD 15	15	4595	150	174	45000	7480	B9.00/20	DB9.00/20	Her YXC	6-4 1/2 x 4 1/2	Fu 5A-53	U5	No	Wls	2F	R 7.8	56.8	7x3 1/2 x 4 1/2	C
31	Starling	1 1/2	1135	142	162	11000	3450	B6.50/20	DB6.50/20	Con 25A	6-3 1/2 x 4 1/2	WG T9	U4	No	Own	BF	H 5.66	36.2	6x2 1/2 x 4 1/2	C
32	FB40	2-2 1/2	1240	142	162	11500	3650	B7.00/20	DB7.00/20	Con 25A	6-3 1/2 x 4 1/2	WG T9	U4	No	Own	BF	H 5.66	36.2	6x2 1/2 x 4 1/2	C
33	FB60	2-3 1/2	1590	142	162	14000	4150	B7.00/20	DB7.00/20	Wau TL	6-3 1/2 x 4 1/2	WG T9	U4	No	Own	BF	H 5.83	37.3	6x2 1/2 x 4 1/2	C
34	FB70	2-3 1/2	2635	174	204	17000	5755	B7.50/20	DB7.50/20	Wau ML	6-4 x 4 1/2	Own UC7	U5	No	Own	BF	R 7.4	52.7	10x3 1/2 x 4 1/2	C
35	FB80	2-3 1/2	3065	174	204	21000	6680	B8.25/20	DB8.25/20	Wau GML	6-4 x 4 1/2	Own UC7	U5	No	Own	BF	R 7.8	55.3	10x3 1/2 x 4 1/2	C
36	FB90 Spec	3-4	3010	174	204	21000	6680	B8.25/20	DB8.25/20	Wau ML	6-4 x 4 1/2	Own UC7	U5	No	Own	BF	R 7.8	55.3	10x3 1/2 x 4 1/2	C
37	FD90	4	4105	174	204	22000	7480	B9.00/20	DB9.00/20	Wau MK	6-4 1/2 x 4 1/2	Own UC7	U5	No	Own	2F	R 8.0	57.0	10x3 1/2 x 4 1/2	C
38	FD90 4-5	4-5	4355	192	222	26000	8200	B9.00/20	DB9.00/20	Wau 6SR	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 7.75	51.6	12x3 1/2 x 4 1/2	C
39	FC100 5-5 1/2	5-5 1/2	4185	192	222	26000	7750	B9.00/20	DB9.00/20	Wau 6MK	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 8.3	51.6	12x3 1/2 x 4 1/2	C
40	FD115 5-6	5-6	4690	192	222	32000	8750	B9.00/20	DB9.00/20	Wau 6SR	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 9.20	54.6	12x3 1/2 x 4 1/2	C
41	FC107 5-6	5-6	4700	192	222	27000	8200	B9.00/20	DB9.00/20	Wau 6SR	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 8.3	55.6	12x3 1/2 x 4 1/2	C
42	FC140 7-8	7-8	6285	192	222	35000	10050	B9.00/20	DB9.00/20	Wau 6-125	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
43	FC140 8-8 1/2	8-8 1/2	6285	192	222	35000	10050	B9.00/20	DB9.00/20	Wau 6-125	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
44	FC140 8-8 1/2	8-8 1/2	6285	192	222	35000	10050	B9.00/20	DB9.00/20	Wau 6-125	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
45	FC145 8-8 1/2	8-8 1/2	6285	192	222	35000	10050	B9.00/20	DB9.00/20	Wau 6-125	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
46	FC145 8-8 1/2	8-8 1/2	6285	192	222	35000	10050	B9.00/20	DB9.00/20	Wau 6-125	6-4 1/2 x 5 1/2	Own UC2	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
47	FW170	9-10	6980	200	230	35000	10550	B9.00/20	DB9.00/20	Wau AB	6-4 1/2 x 5 1/2	Own UC8	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
48	FC170 9-10	9-10	6980	200	230	35000	10550	B9.00/20	DB9.00/20	Wau AB	6-4 1/2 x 5 1/2	Own UC8	U4	Op	Own	w/2F	R 10.0	66.6	12x3 1/2 x 4 1/2	C
49	FD195 12-12 1/2	12-12 1/2	8925	200	230	39000	10750	B10.50/20	DB10.50/20	Cum H Die	6-4 1/2 x 5 1/2	BL 734	U4	Op	Wls 1910W	2F	R 8.88	55.8	15x3 1/2 x 4 1/2	C
50	Stewart	4 1/2	1850	112	121	10500	2875	B6.50/18	B6.50/18	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Cla	BF	H 5.4	35.1	6x2 1/2 x 4 1/2	C
51	44X	1 1/2	760	134	176	8500	3250	B6.50/20	DB6.50/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Cla	SF	H 5.61	35.8	7 1/2 x 2 1/2 x 4 1/2	C
52	44X 1 1/2	1 1/2	830	145	176	9000	3525	B6.50/20	DB6.50/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Cla	SF	H 5.6	35.8	7 1/2 x 2 1/2 x 4 1/2	C
53	45X	2 1/2	1075	145	176	10800	4005	B6.50/20	DB6.50/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Cla	SF	H 6.3	41.1	7 1/2 x 2 1/2 x 4 1/2	C
54	45X 2 1/2	2 1/2	1375	145	190	13500	4350	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	WG	U4	No	Cla	SF	R 6.37	40.7	7 1/2 x 2 1/2 x 4 1/2	C
55	29X8	2 1/2	1795	145	220	15000	5190	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	BL	U5	No	Cla	SF	R 7.16	40.7	7 1/2 x 2 1/2 x 4 1/2	C
56	32X 3	3	2290	165	220	18000	5480	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	BL	U5	No	Cla	SF	R 7.16	40.7	7 1/2 x 2 1/2 x 4 1/2	C
57	32X 3	3	2290	165	220	18000	5480	B7.00/20	DB7.00/20	Lyc	6-3 1/2 x 4 1/2	BL	U5	No	Cla	SF	R 7.16	40.7	7 1/2 x 2 1/2 x 4 1/2	C
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Line Number	ENGINE DETAILS										FUEL SYST.	ELEC-TRICAL	FRONT AXLE	BRAKES	BODY MOUNT-ING DATA				SPRINGS		Auxiliary Type												
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	MAIN BEARINGS							Governor Make	Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make		Radiator Make	Universal Make	Make and Model	Steering Gear Make	SERVICE		Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear
								Piston Material	Number and Diameter	Length																Make, Location Type Operation	Lining Area							Drum Material
1228	4.4	143	27.3	60-2400	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim	30000H	Ros	L4IH	249	FD	81 1/2	51 1/2	34	36x2 1/2	45x2 1/2	N		
2296	4.7	190	33.7	66-2400	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Blo	Ros	Shu 5429	Ros	L4IH	406	TD	84	53 1/2	31	40x2 1/2	54x3	N		
3296	4.7	190	33.7	66-2400	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Blo	Ros	Shu 5532	Ros	L4IH	406	TD	88	57 1/2	31	40x2 1/2	54x3	N		
4339	5.0	274	39.2	73-2000	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Blo	Ros	Shu 5532	Ros	L4IH	498	TD	108	74	31	40x2 1/2	54x3	N		
5385	5.0	274	39.2	73-2000	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Blo	Ros	Tim 14706	Ha	B4IM	399	TD	116 1/2	62 1/2	34	38x2 1/2	56x3	N		
6296	4.7	190	33.7	70-2600	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Cle	Tim	14706	Ha	B4IM	399	TD	113 1/2	59 1/2	34	38x2 1/2	56x3	N		
7361	4.7	230	40.3	77-2400	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Cle	Tim	14706	Ha	B4IM	399	TD	143 1/2	59 1/2	34	38x2 1/2	56x3	N		
8361	4.7	230	40.3	77-2400	L	L	L	C	7-2 1/2	10 1/2	PC	No	Til	M	AL	AL	D.Fu	Yo	Cle	Tim	15735	Ha	B4IA	473	TD	117 1/2	163 1/2	34	41x2 1/2	56x3	N		
9479	4.7	318	51.3	104-2200	L	L	L	C	7-3	14	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim	17373	Ha	B4IA	473	TD	118 1/2	163 1/2	34	41x2 1/2	56x3	N		
10479	4.4	54.1	130-2000	L	L	L	L	C	7-3 1/2	16 1/2	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim	26050	Ha	B4IA	473	TD	168 1/2	33 1/2	34	41x2 1/2	56x3	N		
11230	5.3	152	23.4	68-2800	L	L	L	C	7-2 1/2	10 1/2	CC	No	Str	M	DR	DR	P.Lo	Lo	Cle	Tim	26050	Ros	BO4IA	720	TX	127	72 1/2	24	38 1/2 x2	57x2 1/2	N		
12230	5.3	152	23.4	68-2800	L	L	L	C	7-2 1/2	10 1/2	CC	No	Str	M	DR	DR	P.Lo	Lo	Cle	Tim	26050	Ros	L4IH	280	P	21	102	60	34	40x2 1/2	50x2 1/2	N	
13230	5.3	152	23.4	68-2800	L	L	L	C	7-2 1/2	10 1/2	CC	No	Str	M	DR	DR	P.Lo	Lo	Cle	Tim	26050	Ros	L4IH	286	C	21	105	60	34	40x2 1/2	50x2 1/2	N	
14268	4.9	175	27.3	75-2800	L	L	L	C	7-2 1/2	10 1/2	CC	No	Str	M	DR	DR	P.Lo	Lo	Cle	Tim	26050	Ros	L4IH	299	a	21	110	60	34	40x2 1/2	52x2 1/2	N	
15268	4.9	175	27.3	75-2800	L	L	L	C	7-2 1/2	10 1/2	CC	No	Str	M	DR	DR	P.Lo	Lo	Cle	Tim	26050	Ros	L4IH	399	a	21	124	68	34	40x2 1/2	52x2 1/2	N	
16309	4.9	230	36.4	110-2800	L	L	L	C	7-2 1/2	12 1/2	CC	No	Sch	M	DR	DR	dp.Lo	Mc	Cle	Tim	26050	Ros	L4IHV	399	a	FD	143	83	34	44x3	56x3 1/2	N	
17358	5.1	150	27.3	65-2600	L	L	L	C	7-2 1/2	10 1/2	FF	No	Str	M	DR	DR	D.BB	Yo	Spl	Tim	26050	Ros	L4IH	350	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
18248	5.1	150	27.3	65-2600	L	L	L	C	7-2 1/2	10 1/2	FF	No	Str	M	DR	DR	D.BB	Yo	Spl	Tim	26050	Ros	L4IHV	482	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
19248	5.1	150	27.3	65-2600	L	L	L	C	7-2 1/2	10 1/2	FF	No	Str	M	DR	DR	D.BB	Yo	Spl	Tim	26050	Ros	L4IHV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
20339	4.7	225	38.4	73-2200	L	L	L	C	7-2 1/2	10 1/2	PC	Mo	Str	M	AL	AL	D.BB	Yo	Spl	Tim	3000H	Ros	L4IHV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
21339	4.7	225	38.4	73-2200	L	L	L	C	7-2 1/2	10 1/2	PC	Mo	Str	M	AL	AL	D.BB	Yo	Spl	Tim	3000H	Ros	L4IHV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
22339	4.7	225	38.4	73-2200	L	L	L	C	7-2 1/2	10 1/2	PC	Mo	Str	M	AL	AL	D.BB	Yo	Spl	Tim	3000H	Ros	L4IHV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
23339	4.7	225	38.4	73-2200	L	L	L	C	7-2 1/2	10 1/2	PC	Mo	Str	M	AL	AL	D.BB	Yo	Spl	Tim	3000H	Ros	L4IHV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
24360	4.7	225	38.4	73-2200	L	L	L	C	7-2 1/2	10 1/2	PC	Mo	Str	M	AL	AL	D.BB	Yo	Spl	Tim	3000H	Ros	L4IHV	452	G	TX	129 1/2	Opt	31 1/2	40x2 1/2	50x3	N	
25428	4.4	280	45.9	80-2500	L	L	L	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Shu	Ros	L4IHV	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3	N	
26428	4.4	280	45.9	80-2500	L	L	L	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Shu	Ros	L4IHV	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3	N	
27428	4.4	280	45.9	80-2500	L	L	L	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Shu	Ros	L4IHV	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3	N	
28428	4.4	280	45.9	80-2500	L	L	L	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Shu	Ros	L4IHV	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3	N	
29478	4.4	318	51.2	103-2200	L	L	L	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Shu	Ros	L4IHV	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3	N	
30478	4.4	318	51.2	103-2200	L	L	L	C	7-3	15	PC	Mo	Str	M	AL	AL	D.Fu	Yo	Spl	Shu	Shu	Ros	L4IHV	768	H	TD	106	Opt	31 1/2	40x2 1/2	50x3	N	
31454	5.1	137	28.0	72-3300	L	L	L	C	7-2 1/2	10 1/2	CC	No	Zen	M	DR	DR	P.Lo	Lo	Pe	Spl	Tim	3000H	Ros	L4IH	269	P	TX	96	57	34	38x2 1/2	50x2 1/2	N
32454	5.1	137	28.0	72-3300	L	L	L	C	7-2 1/2	10 1/2	CC	No	Zen	M	DR	DR	P.Lo	Lo	Pe	Spl	Tim	3000H	Ros	L4IH	269	P	TX	96	57	34	38x2 1/2	50x2 1/2	N
33454	5.1	137	28.0	72-3300	L	L	L	C	7-2 1/2	10 1/2	CC	No	Zen	M	DR	DR	P.Lo	Lo	Pe	Spl	Tim	3000H	Ros	L4IH	269	P	TX	96	57	34	38x2 1/2	50x2 1/2	N
34358	4.4	230	38.4	80-2500	L	L	L	C	7-2 1/2	10 1/2	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spl	Tim	3000H	Ros	L4IHV	399	a	CX	144	91	34	42x2 1/2	54x3	N	
35358	4.4	230	38.4	80-2500	L	L	L	C	7-2 1/2	10 1/2	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spl	Tim	3000H	Ros	L4IHV	399	a	CX	144	91	34	42x2 1/2	54x3	N	
36358	4.4	230	38.4	80-2500	L	L	L	C	7-2 1/2	10 1/2	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spl	Tim	3000H	Ros	L4IHV	399	a	CX	144	91	34	42x2 1/2	54x3	N	
37381	4.4	240	40.8	85-2500	L	L	L	C	7-2 1/2	10 1/2	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spl	Tim	3000H	Ros	L4IHV	399	a	CX	144	91	34	42x2 1/2	54x3	N	
38381	4.4	240	40.8	85-2500	L	L	L	C	7-2 1/2	10 1/2	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spl	Tim	3000H	Ros	L4IHV	399	a	CX	144	91					

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS					FRAME								
		Wheels Driven—6-Wheelers	Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	ENGINE		TRANSMISSION		REAR AXLE							
											Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Make and Model	Gear and Type	Drive and Torque	GEAR RATIOS	In High	In Low	Side Rail Dimensions	Type
Four-Wheel-Drive																						
1	Coleman.....E52	2 1/2	3800	120	144	12800	7200	B9.00/24	B9.00/24	Bud K393	6-4 1/4 x 4 1/2	Fu RU 16	U 4 A 2	Wis CR15	2F	H Opt	Opt	10x2 1/2 x 7 1/2	B	B	B	B
2	.....E53	3 1/2	5300	130	180	18900	8000	B9.75/24	B9.75/24	Bud K428	6-4 1/4 x 4 1/2	Fu MRU16	U 4 A 2	Wis CR26	2F	H Opt	Opt	12x2 1/2 x 7 1/2	B	B	B	B
3	.....E54	4 1/2	5600	130	180	20400	8800	B10.50/24	B10.50/24	Bud L468	6-4 1/4 x 4 1/2	Fu MRU16	U 4 A 2	Wis CR30	2F	H Opt	Opt	12x2 1/2 x 7 1/2	B	B	B	B
4	.....E55	5 1/2	6150	130	180	23000	9600	B11.25/24	B11.25/24	Bud L525	6-4 1/4 x 4 1/2	Fu MRU16	U 4 A 2	Wis CR30	2F	H Opt	Opt	12x2 1/2 x 7 1/2	B	B	B	B
5	.....E55S	5 1/2	7200	144	180	24500	10600	B11.25/24	B11.25/24	Bud L525	6-4 1/4 x 4 1/2	Fu MRU16	U 4 A 2	Wis CR122	2F	H Opt	Opt	12x2 1/2 x 7 1/2	B	B	B	B
6	.....E56	6 1/2	7800	144	180	29800	11600	B10.50/24	B10.50/24	Bud GF6	6-4 1/4 x 4 1/2	Fu MHU	U 4 A 2	Wis CR122	2F	H Opt	Opt	12x2 1/2 x 7 1/2	B	B	B	B
7	.....E57	7 1/2	9700	144	180	32000	12400	B11.25/24	B11.25/24	Ste LT6	6-6 1/4 x 6	BL 714	U 4 A 2	Wis CR122	2F	H Opt	Opt	16x3 1/2 x 7 1/2	B	B	B	B
8	Corbitt (3).....10FB6	1 1/2-2	2300	Op	Op	Op	4420	B6.50/20	B6.50/20	Con 25A	6-3 1/4 x 4 1/2	BL 214	U 4 A 2	Tim 53200H	2F	H Opt	Opt	8 1/2 x 3 1/2 x 3 1/2	T	T	T	T
9	.....9FB6	2 1/2-3 1/2	3200	Op	Op	Op	5060	B7.00/20	B7.00/20	Con 20C	6-3 1/4 x 4 1/2	BL 224	U 4 A 2	Tim 54200H	2F	H Opt	Opt	8 1/2 x 3 1/2 x 3 1/2	T	T	T	T
10	.....12FB6	3 1/2-4 1/2	4000	Op	Op	Op	5630	B7.50/20	B7.50/20	Con E602	6-4 1/4 x 4 1/2	FuL 5A38	U 5 A 2	Tim 56200H	2F	H Opt	Opt	9 1/2 x 3 1/2 x 3 1/2	T	T	T	T
11	.....12FD6	4 1/2-5 1/2	4300	Op	Op	Op	5730	B7.50/20	B7.50/20	Con E602	6-4 1/4 x 4 1/2	FuL 5A38	U 5 A 2	Wis 4916L	2F	H Opt	Opt	9 1/2 x 3 1/2 x 3 1/2	T	T	T	T
12	.....15FD6	5 1/2-6 1/2	5700	Op	Op	Op	8100	B8.25/20	B8.25/20	Con 21R	6-4 1/4 x 4 1/2	FuL 5A53	U 5 A 2	Wis 7000L	2F	H Opt	Opt	9 1/2 x 3 1/2 x 3 1/2	T	T	T	T
13	.....18FD6	6 1/2-7 1/2	6300	Op	Op	Op	9200	B9.00/20	B9.00/20	Con 22R	6-4 1/4 x 4 1/2	FuL 5A53	U 5 A 2	Wis 1237H	2F	H Opt	Opt	9 1/2 x 3 1/2 x 3 1/2	T	T	T	T
14	Fageol.....685RB	8-10	7100	174	174	42000	12750	B10.50/24	B10.50/24	Wau 6RB	6-5 1/4 x 5 1/2	BL 734	U 4 A 3	Tim 68720W	WF	R 6.54	144	8 1/2 x 4 1/2 x 4 1/2	C	C	C	C
15	FDW.....H4	1 1/2-2	3325	120	160	11000	5300	P34x7	P34x7	Wis SU	4-4 1/2	Cot A	U 4 A 2	Own H	BF	H 7.36	38.0	5 1/2 x 2 1/2 x 2 1/2	C	C	C	C
16	.....H6	2 1/2-3 1/2	3385	133	180	13000	5900	P9.00/20	P9.00/20	Wau MS	6-3 1/4 x 4 1/2	BL 51	U 4 A 2	Own H	BF	H 8.92	47.7	5 1/2 x 2 1/2 x 2 1/2	C	C	C	C
17	.....HH-6	3 1/2-4 1/2	4135	138	170	16000	6900	P9.75/20	P9.75/20	Wau MK	6-4 1/4 x 4 1/2	BL 55	U 4 A 2	Own U	BF	H 6.95	84.7	5 1/2 x 2 1/2 x 2 1/2	C	C	C	C
18	.....B	3 1/2-4 1/2	4200	124	156	15500	6460	S36x8	S36x8	Own A	4-4 1/4 x 5 1/2	Cot DAF	U 4 A 2	Own B	BF	H 8.9	35.6	5 1/2 x 2 1/2 x 2 1/2	C	C	C	C
19	.....CU-6	3 1/2-4 1/2	4985	147	179	19500	8000	B10.50/20	B10.50/20	Wau SRS	6-4 1/4 x 4 1/2	Own U	U 5 A 2	Own U	BF	H 7.35	73	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
20	.....CU-6A	3 1/2-4 1/2	4685	147	179	19000	7800	B10.50/20	B10.50/20	Wau SRS	6-4 1/4 x 4 1/2	BL 615	U 5 A 2	Own U	BF	H 6.72	55.2	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
21	.....SSU	4-5	5135	147	179	22000	8300	B11.25/20	B11.25/20	Wau SRS	6-4 1/4 x 4 1/2	Own U	U 5 A 2	Own U	BF	H 7.35	73	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
22	.....SSU-A	4-5	4835	147	179	21500	8100	B11.25/20	B11.25/20	Wau SRS	6-4 1/4 x 4 1/2	Own U	U 5 A 2	Own U	BF	H 7.35	73	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
23	.....M5	5-7 1/2	7400	165	195	29500	11200	B12.75/20	B12.75/20	Wau SRS	6-4 1/4 x 4 1/2	BL 714	U 4 A 2	Wis 131W	2F	H 10.0	207	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
24	.....MF6	5-6	5785	147	179	24500	9100	B10.50/20	B10.50/20	Wau SRS	6-4 1/4 x 4 1/2	Own U	U 5 A 2	Own U	BF	H 7.35	73	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
25	.....LBU	5-6	4800	171	Op	23500	9000	B9.00/20	B9.00/20	Wau SRS	6-4 1/4 x 4 1/2	BL 55	U 4 A 2	Own U	BF	H 7.35	73	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
26	(Frt.-Wl.-Dr.)	5-6	4800	171	Op	23500	9000	B9.00/20	B9.00/20	Wau SRS	6-4 1/4 x 4 1/2	BL 714	U 4 A 2	Wis 131W	2F	H 8.36	173	10x3 1/2 x 3 1/2	C	C	C	C
27	(T)60-T	20-25	6300	134	Op	60000	10000	B10.50/20	B10.50/20	Wau 125	6-4 1/4 x 4 1/2	Own U	U 5 A 2	Own U	BF	H 7.35	73	7 1/2 x 3 1/2 x 3 1/2	C	C	C	C
28	(T)72-T	25-30	7000	120	Op	72000	10450	B9.75/20	B9.75/20	Wau 125	6-4 1/4 x 4 1/2	BL 724	U 4 A 2	Tim 53200H	2F	H 6.7	47.4	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
29	Indiana.....12X4	1 1/2	2650	141	141	10000	4350	B6.50/20	B6.50/20	Her JXC	6-3 1/4 x 4 1/2	BL	U 4 A 2	Tim 53200H	2F	H 5.14	54.0	7 1/2 x 2 1/2 x 2 1/2	C	C	C	C
30	.....14X4	2 1/2	3950	141	141	14000	5900	B7.50/20	B7.50/20	Her WXB	6-3 1/4 x 4 1/2	BL	U 4 A 2	Wis	2F	H 5.40	50.0	7 1/2 x 2 1/2 x 2 1/2	C	C	C	C
31	.....16X4	3 1/2	4850	156	160	16000	7500	B8.25/20	B8.25/20	Her WXC2	6-4 1/4 x 4 1/2	BL	U 4 A 2	Wis	2F	H 6.06	89.0	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
32	.....18X4	4 1/2	5850	160	224	21000	9000	B9.00/20	B9.00/20	Her YXC	6-4 1/4 x 4 1/2	BL	U 4 A 2	Wis	2F	H 7.53	110	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
33	.....20X4	5 1/2	7200	188	224	24000	10600	B9.75/20	B9.75/20	Her YXC3	6-4 1/4 x 4 1/2	BL	U 4 A 2	Wis	2F	H 8.14	138.6	9 1/2 x 3 1/2 x 3 1/2	C	C	C	C
34	.....22X4	6 1/2	10000	200	31000	14000	B10.50/20	B10.50/20	Her HXC	6-5 1/4 x 6	BL	U 4 A 2	Wis	2F	H 9.11	186.0	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C	
35	LeMoon (e.o.e.)	1100 5	94	145	4650	B6.50/20	4650	B6.50/20	B6.50/20	Wau 6RB	6-5 1/4 x 5 1/2	BL 7341	U 4 A 2	Tim 66725W	WF	H 8.2	51.4	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
36	Mar.-Herr.....A10	1 1/2-2	2350	135	155	12500	5150	B7.50/20	B7.50/20	Her JXA	6-3 1/4 x 4 1/2	WG T9	U 4 A 2	Own-Tim	BF	H 6.60	82.3	7 1/2 x 2 1/2 x 2 1/2	C	C	C	C
37	.....A20	2 1/2-3 1/2	3250	135	155	12500	5150	B7.50/20	B7.50/20	Her JXC	6-3 1/4 x 4 1/2	WG T9	U 4 A 2	Own-Tim	BF	H 6.60	82.3	7 1/2 x 2 1/2 x 2 1/2	C	C	C	C
38	.....A30	3 1/2-4 1/2	4300	155	167	17000	7500	B8.25/20	B8.25/20	Her WXC	6-4 1/4 x 4 1/2	Fu 5A380	U 5 A 2	Own-Tim	BF	H 6.17	105	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
39	.....A40	4 1/2-5 1/2	5700	165	167	22000	9150	B9.00/20	B9.00/20	Her WXC3	6-4 1/4 x 4 1/2	Fu 5A380	U 5 A 2	Own-Tim	BF	H 8.0	133	9 1/2 x 3 1/2 x 3 1/2	C	C	C	C
40	.....A50	4 1/2-5 1/2	5700	165	167	22000	9150	B9.00/20	B9.00/20	Her WXC3	6-4 1/4 x 4 1/2	Fu 5A380	U 5 A 2	Own-Tim	BF	H 8.0	133	9 1/2 x 3 1/2 x 3 1/2	C	C	C	C
41	.....TH300	4 1/2	6150	163	193	21500	8985	B9.75/20	B9.75/20	Her YXC	6-4 1/4 x 4 1/2	Fu 5A380	U 5 A 2	Own-Wis	2F	H 8.0	143	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
42	.....TH310	5 1/2	7150	163	193	24500	9620	B9.75/20	B9.75/20	Her YXC3	6-4 1/4 x 4 1/2	Fu 5A530	U 5 A 2	Own-Wis	2F	H 8.0	153	8 1/2 x 3 1/2 x 3 1/2	C	C	C	C
43	.....TH310A	6 1/2	8050	163																		

Type	ENGINE DETAILS										FUEL SYST.	ELEC-TRICAL	FRONT AXLE	BRAKES		BODY MOUNT-ING DATA		SPRINGS		Auxiliary Type												
	MAIN BEARINGS													SERVICE		Type		Front														
	Line Number	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Number and Diameter	Length	Oiling System Type	Governor Make	Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universal Make	Make and Model	Steering Gear Make	Make, Location, Operation	Lining Area	Drum Material	Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	
B	1393	4.9	26.0	42.0	103-2600	L	L	L	7-3	11%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	CF15	Ros	W2/4IM	476	p	TD	108	78	30	48x3	48x3	C
B	2428	4.7	28.0	45.9	107-2600	L	L	L	7-3	11%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	CF25	Ros	W2/4IM	476	p	TD	144	89	30	48x3	48x3	C
B	3468	4.8	29.5	43.4	108-2200	L	L	L	7-3	11%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	CF30	Ros	W2/4IM	476	p	TD	144	89	30	48x3	48x3	C
B	4525	4.9	33.6	48.2	114-2200	L	L	L	7-3	11%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	CF122	Ros	W2/4IM	530	G	TD	168	105	30	48x3	52x3	C
B	5525	4.9	33.6	48.2	114-2200	L	L	L	7-3	11%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	CF122	Ros	W2/4IM	530	G	TD	168	105	30	48x3	52x3	C
B	6588	4.9	33.6	48.2	114-2200	L	L	L	7-3	11%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	CF122	Ros	W2/4IM	530	G	TD	168	105	30	48x3	52x3	C
B	7774	4.3	47.5	66.1	126-1850	L	L	L	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F54B	Ros	L4IH	327	a	TX	Opt	Opt	34	40x2	50x2	C
B	8214	4.9	142.27	3.7	72-3200	L	L	L	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F56B	Ros	L4IH	345	a	TX	Opt	Opt	34	40x2	54x3	C
B	9248	5.0	160.27	3.7	78-3200	L	L	L	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F75AB	Ros	L4IH	345	a	TX	Opt	Opt	34	40x2	54x3	C
B	10360	4.4	240.40	8.0	90-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	11360	4.4	240.40	8.0	90-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	12428	4.6	340.48	9.1	118-2000	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F311	Ros	L4IHV	768	a	TD	Opt	Opt	34	40x2	54x3	C
B	13500	4.4	440.60	0.0	125-1800	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	14577	4.4	440.60	0.0	125-1800	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	15251	4.4	160.25	6.0	50-2000	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	16315	4.5	200.33	7.7	72-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	17381	4.5	240.40	8.0	85-2400	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	18398	4.0	210.36	1.0	56-1350	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	19411	4.0	265.40	8.0	91-2300	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	20411	4.0	265.40	8.0	91-2300	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	21462	4.5	300.45	9.0	102-2400	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	22462	4.5	300.45	9.0	102-2400	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	23517	4.6	330.51	3.1	110-2300	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	24517	4.6	330.51	3.1	110-2300	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	25411	4.6	265.40	8.0	91-2300	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	26411	4.6	265.40	8.0	91-2300	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	27462	4.5	330.45	9.0	125-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	28462	4.5	330.45	9.0	125-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	29462	4.5	330.45	9.0	125-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	30462	4.5	330.45	9.0	125-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	31462	4.5	330.45	9.0	125-2500	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	32428	4.5	293.45	9.0	94-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	33474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	34474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	35474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	36474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	37474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	38474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	39474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Zen	P	DR	DR	D.Fu	Pe	Spi	Wis	F211	Ros	L4IHV	660	a	TD	Opt	Opt	34	40x2	54x3	C
B	40474	4.4	315.51	3.1	104-2200	L	H	G	7-3	13%	FP	Ha	Z																			

Line Number	MAKE AND MODEL	GENERAL See Keynote					TIRE SIZE		MAJOR UNITS					FRAME					
		Wheels Driven—6-Wheelers					Front	Rear	ENGINE	TRANSMISSION	REAR AXLE	GEAR RATIOS	Side Rail Dimensions	Type					
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight									Chassis Wt. Stripped				
									Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	In High	In Low	
1	18X6	6 3/4	6650	170	28000	10500	B8.25/20	DB8.25/20	Her RXC	6-4 1/2 x 5 1/2	BL	U4 A 2 Wis	2F	H 7.83	110.8 1/2 x 3 1/2	C			
2	20X6	6 1/2	8950	188	36000	14000	B9.00/20	DB9.00/20	Her HXC	6-5 1/2 x 6	BL	U4 A 2 Wis	2F	R 8.95	84.0 9 x 3 1/2	B			
3	22X6	6 5/8	12100	200	40000	16000	B9.75/20	DB9.75/20	Her HXD	6-5 1/2 x 6	BL	U4 A 2 Wis	2F	R 9.11	86.0 8 1/2 x 3 1/2	B			
4	Ken 89SBT	2C 7	2380	188	224	7350	P32x6	DP32x6	Her JXC	6-3 1/2 x 4 1/2	BL 234	U4 Op Tim SBT151	SF	A 7.4	45.5 8 x 3 1/2	TL			
5	127SBT	2C 8	3450	188	224	8000	B8.25/20	DB8.25/20	Her WXC2	6-4 1/2 x 5 1/2	BL 334	U4 Op Tim SBT151	SF	A 7.4	45.5 8 x 3 1/2	TL			
6	146SBT	2C 9	4250	188	224	9000	B9.00/20	DB9.00/20	Bud K393	6-4 1/2 x 4 1/2	BL 334	U4 Op Tim SBT251	SF	A 7.8	48.7 8 x 3 1/2	TL			
7	D-146-SW	2C 9	7500	210	240	33000	10500	B9.00/20	Bud 6D-415	6-4 1/2 x 5 1/2	BL 5341	U4 Op TimSW251sw	SF	H 7.5	47.6 8 x 3 1/2	T			
8	186SDT	2C 10	6450	205	235	38000	10500	B9.00/20	Her YXC2	6-4 1/2 x 5 1/2	BL 1554	U4 A 3 Tim Sdt310w	WF	H 7.33	104.9 x 3 1/2	T			
9	241SDT	2C 10	6850	205	235	40500	11000	B9.00/20	Her RXB	6-4 1/2 x 5 1/2	BL 714	U4 A 3 Tim Sdt310w	WF	H 7.33	104.9 x 3 1/2	T			
10	D-346-C	4R 10	10250	210	240	40500	14300	B9.75/20	Cum HA6	6-4 1/2 x 5 1/2	BL 714	U4 A 3 TimSW320w	WF	H 6.8	92.2 8 x 3 1/2	C			
11	346A	4R 10	8800	210	240	40500	13000	B9.75/20	Has 160	6-4 1/2 x 5 1/2	BL 714	U4 A 3 Tim SW310w	WF	H 7.25	84.5 8 x 3 1/2	C			
12	346B	4R 10	8550	210	240	40500	13000	B9.75/20	Bud GF-6	6-4 1/2 x 5 1/2	BL 714	U4 A 3 Tim SW310w	WF	H 7.25	84.5 8 x 3 1/2	C			
13	346C	4R 10	9500	210	240	40500	14000	B9.75/20	Has 175	6-5 x 6	BL 714	U4 A 3 Tim SW310w	WF	H 7.25	84.5 8 x 3 1/2	C			
14	386C	4R 10	10200	210	240	50100	14500	B9.75/20	Has 175	6-5 x 6	BL 714	U4 A 3 Tim SW410w	WF	H 7.60	103.8 x 3 1/2	C			
15	Kleiber	81	1900	180	190	20000	6500	P32x6	Her JXB	6-3 1/2 x 4 1/2	BL 2241	U4 No Tim SBT 75	BF	R 5.14	32.4 7 1/2 x 3 1/2	C			
16	121	7	2800	190	200	26000	8500	B8.25/20	Con 18R	6-4 1/2 x 4 1/2	BL 3241	U4 No Tim SBT 151	BF	R 6.17	33.4 7 1/2 x 3 1/2	C			
17	141	9	3950	200	210	33000	9500	B9.00/20	Con 21R	6-4 1/2 x 4 1/2	BL 5241	U4 No Tim SBT251	BF	R 6.44	41.7 7 1/2 x 3 1/2	C			
18	La Fran-R-Q6	4R 9-12	11605	216	260	40000	14900	B10.50/20	Own 312B	12-4x5	BL 714	U4 No Tim SWD410	WF	Opt Opt	12x3 1/2 x 4 1/2	L			
19	Le Moon (9) 701	4R 5-6	4475	187	199	8500	B8.25/20	DB8.25/20	Lyc AEC	8-3 1/2 x 4 1/2	Fu VUOG	U5 No T 63703-97H	WF	R 6.20	43.8 7 x 4 1/2	B			
20	(9) 801	4R 6-7	5100	187	199	9720	B9.00/20	DB9.00/20	Lyc AEC	8-3 1/2 x 4 1/2	Fu VUOG	U5 No T 63703-97H	WF	R 6.20	43.8 7 x 4 1/2	B			
21	802	4R 6-7	5350	187	199	9800	B9.00/20	DB9.00/20	Wau 6SRL	6-4 1/2 x 5 1/2	Fu VUOG	U5 No T 65703-97w	WF	H 6.75	47.1 7 x 4 1/2	B			
22	900	4R 7-8	6775	191	203	12000	B9.75/20	DB9.75/20	Wau 6AB	6-4 1/2 x 5 1/2	BL 607	U7 No TimSW310w	WF	H 9.25	86.9 9 x 4 1/2	B			
23	1000	4R 8-10	7950	196	208	12600	B9.75/24	DB9.75/24	Wau 6AB	6-4 1/2 x 5 1/2	BL 714	U4 A 3 TimSW310w	WF	H 9.25	128.9 x 4 1/2	B			
24	1200	4R 10-12	8500	196	208	14000	B9.75/24	DB9.75/24	Wau 6RB	6-5 1/2 x 5 1/2	BL 714	U4 A 3 TimSW410w	WF	H 9.25	128.9 x 4 1/2	B			
25	1200D	4R 10-12	9750	196	208	14000	B9.75/24	DB9.75/24	Cum Die H6	6-4 1/2 x 5 1/2	BL 735	U5 No TimSW410w	WF	H 7.6	47.6 9 x 4 1/2	B			
26	Mack BX	4R 8-15	7950	178	207	12000	B8.25/22	DB8.25/22	Own CF	6-4 1/2 x 5 1/2	Own BX	U4 No Own BX6	2F	A 6.53	46.0 9 1/2 x 3 1/2	C			
27	BQ	4R 8-15	9350	224	248	15000	B9.75/22	DB9.75/22	Own BQ	6-4 1/2 x 5 1/2	Own AC	A 4 No Own BX6	2F	A 6.54	41.9 10 1/2 x 3 1/2	C			
28	AC	4R 8-15	8500	217	257	14550	P40x8	DP40x8	Own BQ	6-4 1/2 x 5 1/2	Own AC	J 4 No Own AC	CD	R 9.26	59.4 8 1/2 x 3 1/2	C			
29	AP	4R 8-15	9000	217	257	15900	B9.75/22	DB9.75/22	Own BQ	6-4 1/2 x 5 1/2	Own AC	A 4 No Own AC	2F	A 7.46	47.8 8 1/2 x 3 1/2	C			
30	AP	4R 8-15	10500	217	257	14850	P40x8	DP40x8	Own AP	6-5 x 6	Own AC	J 4 No Own AC	CD	R 9.26	59.4 8 1/2 x 3 1/2	C			
31	AP	4R 8-15	11000	217	257	16400	B9.75/22	DB9.75/22	Own AP	6-5 x 6	Own AC	A 4 No Own AC	2F	A 7.46	47.8 8 1/2 x 3 1/2	C			
32	Mar-Her TH310A	6	10000	193	229	14070	B9.75/22	DB9.75/22	Her RXC	6-4 1/2 x 5 1/2	Fu 5A530	U5 A 2 Own-Wis	2F	R 9.11	163.8 8 1/2 x 3 1/2	P			
33	(13) TH315	6 12-13	12500	198	234	15420	B9.75/22	DB9.75/22	Her HXC	6-5 1/2 x 6	BL 724	U4 A 3 Own-Wis	2F	R 9.11	163.8 8 1/2 x 3 1/2	P			
34	(13) TH320	6 15-18	14500	225	255	18450	B10.50/24	DB10.50/24	Her HXC	6-5 1/2 x 6	BL 724	U4 A 3 Own-Wis	2F	R 9.11	163.8 8 1/2 x 3 1/2	P			
35	Moreland RA15	2C 3	1550	153	Op	15000	B8.50/20	DB8.50/20	Her JXC	6-3 1/2 x 4 1/2	BL 224	U4 No Tim SBT75	SF	R 5.66	35.0 7 1/2 x 2 1/2	T			
36	RA20	2C 5	1981	149	Op	20000	B9.00/20	DB9.00/20	Her JXC	6-3 1/2 x 4 1/2	BL 224	U4 No Tim SBT151	SF	R 6.17	38.2 7 1/2 x 2 1/2	T			
37	BD21M	4C 5	3534	184	Op	21000	B7.50/20	DB7.50/20	Her WXC3	6-4 1/2 x 4 1/2	BL 334	U4 No Tim 64800	WF	R 6.40	39.6 9 1/2 x 3 1/2	T			
38	ED25M	4C 10	4067	184	Op	25000	B8.25/20	DB8.25/20	Her WXC3	6-4 1/2 x 4 1/2	BL 334	U4 No Tim 65000	WF	R 7.50	46.0 9 1/2 x 3 1/2	T			
39	ED34M	4C 10	5869	220	Op	34000	B9.00/20	DB9.00/20	Her RXB	6-4 1/2 x 5 1/2	BL 524	U4 No Tim 65720	WF	R 8.50	62.0 9 1/2 x 3 1/2	T			
40	FD34	4C 10	7607	221	Op	34000	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 5 1/2	Own UC7	U5 No Own	BF	R 7.8	55.5 10 1/2 x 3 1/2	L			
41	Sterling FBT152	2R 8 1/2	4580	174	204	30400	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 5 1/2	Own UC7	U5 No Own	BF	R 7.8	55.5 10 1/2 x 3 1/2	L			
42	FDT152	2R 8 1/2	4705	174	204	30400	B9.00/20	DB9.00/20	Wau 6-110	6-4 1/2 x 5 1/2	Own UC7	U5 No Own	BF	R 7.8	55.5 10 1/2 x 3 1/2	L			
43	FDS180	4R 8-10	8665	158	Op	36000	12850	P40x8	Wau AB	6-4 1/2 x 5 1/2	Own UC8	U4 A 3 Tim 310	2F	R 9.1	52.7 10 1/2 x 3 1/2	L			
44	FDS200	4R 10-12	9130	159	Op	40000	13550	P40x8	Wau RB	6-5 1/2 x 5 1/2	Own UC8	U4 A 3 Tim 410	2F	R 9.1	52.7 10 1/2 x 3 1/2	L			
45	FCS210	4R 15-18	10175	Op	Op	42000	14750	P40x8	Wau RB	6-5 1/2 x 5 1/2	Own UC8	U4 A 3 Own	CD	R 9.5	59.6 15 1/2 x 3 1/2	L			
46	FCT200	2R 12-12 1/2	7670	178	208	40000	12050	P40x8	Wau 6-125	6-4 1/2 x 5 1/2	Own UC	U4 Op Own	2F	R 8.85	58.8 12 1/2 x 3 1/2	L			
47	FDT250	2R 16-16 1/2	8955	186	216	50000	13550	P42x9	Wau RB	6-5 1/2 x 5 1/2	Own UC8	U4 Op Own	2F	R 8.85	58.8 12 1/2 x 3 1/2	L			
48	FCT180	2R 10-10 1/2	7265	178	208	36000	11200	P36x8	Wau SRL	6-4 1/2 x 5 1/2	Own UC	U4 Op Own	2F	R 8.2	54.5 12 1/2 x 3 1/2	L			
49	FCT200	2R 12-12 1/2	7685	178	208	40000	11800	P40x8	Wau 6-125	6-4 1/2 x 5 1/2	Own UC	U4 Op Own	2F	R 8.2	54.5 12 1/2 x 3 1/2	L			
50	Ward 440TC	15	11000	240	246	44000	14000	B9.75/22	Cu. Die H2A	6-4 1/2 x 6	BL 735	A 5 No Tim Sdt420w	WF	R 6.42	40.4 14 1/2 x 3 1/2	T			
51	LaFr. 440TR	15	9350	240	246	44000	13700	B9.75/22	Wau RB	6-5 1/2 x 5 1/2	BL 735	A 5 No Tim Sdt420w	WF	R 6.42	40.4 14 1/2 x 3 1/2	T			
52	340TM	7 1/2	4700	204	230	28000	9200	B8.25/20	Wau MK	6-4 1/2 x 4 1/2	BL 5352	A 5 No Tim SBT251H	SF	T Opt Opt	12x3 1/2 x 4 1/2	C			
53	400TS	12	7100	203	241	40000	13000	B9.75/20	Wau 6-125	6-4 1/2 x 5 1/2	BL 5352	U5 No Tim SWT320w	WF	R 8.5	65.5 14 1/2 x 3 1/2	C			
54	Whit 630SW251	4R 5-6	(12)	193	205	10000	B8.25/20	DB8.25/20	Own TA	6-4 1/2 x 5 1/2	Own AB	U5 No Tim SW251	WF	R 6.75	44.2 8 1/2 x 3 1/2	C			
55	642SW320	4R 7-9	(12)	198	210	10000	B9.00/20	DB9.00/20	Own SA	6-4 1/2 x 5 1/2	Own AB	U5 No TimSW310w	WF	R 8.5	55.6 8 1/2 x 3 1/2	C			
56	643SW420	4R 9-11	(12)	198	215	14400	P40x8	DP40x8	Own SA	6-4 1/2 x 5 1/2	Own AB	U5 No TimSW410w	WF	R 10.2	69.1 8 1/2 x 3 1/2	C			

"Farming" Crops Costs

(CONTINUED FROM PAGE 23)

are mileage records of three tires: first, 28,488 miles; second, 31,257, and third, 31,797.

WE have been experimenting with retread tires. One put on in October, 1932, lasted until September, 1933, and produced 8477 miles as against 10,611 on the same tire when new—and this on a truck hard on tires. These tires new cost twice as much as retreading, thus demonstrating that the retread gave us one-fifth less mileage but at one-half the cost. Here is one put on October, 1932, which has traveled 12,204 miles and is still going strong. Incidentally, these retreads do better on the front end than on the rear.

ANOTHER thing that has saved us money is an oil reclaimer. We have not bought any new oil for many months because we find that by removing the non-lubricating foreign matter, we have restored the oil to its original value. We have also found it was bad practice to take the drainings out of a

crankcase and throw it right into the reclaimer, because the foreign matter has been all stirred up. Now we let a drum of oil settle at least a week before we reclaim it.

The pump with which we draw the reclaimed oil out of the drum is set 8 inches from the bottom of the drum, so that the pump will not reach the settled heavy ends, the remaining 8 inches at the bottom is thrown away. By this method we can now use filter pads four or five times and as they cost 50 cents a piece, this is quite a saving in itself.

Our oil costs us around 7 1/2 cents per gallon to reclaim. We also have an oil analysis made once a month which is a helpful guide.

AT the present time we are having our fleet checked by precise instruments to find out what part or parts, if any, are not functioning 100 per cent. This check consists of testing battery, cables, wiring, condenser, coil, plugs, timing and air fuel ratio. When this check is completed we will repair or replace any parts found defective. We believe the more efficient you keep your fleet, the cheaper it is to operate.

Trucks are greased monthly regardless of mileage, and the oil is also

changed on a monthly basis. The savings achieved by keeping adequate records pay big dividends for the time consumed in keeping them.

A daily record is kept of the amount of oil and gas consumed by each unit and if either is high a check is made to find the cause. When we find the cause it is corrected.

WE have found that drivers are always in a hurry, that they whip their trucks around corners, and this high speed is reflected in the cost of maintenance.

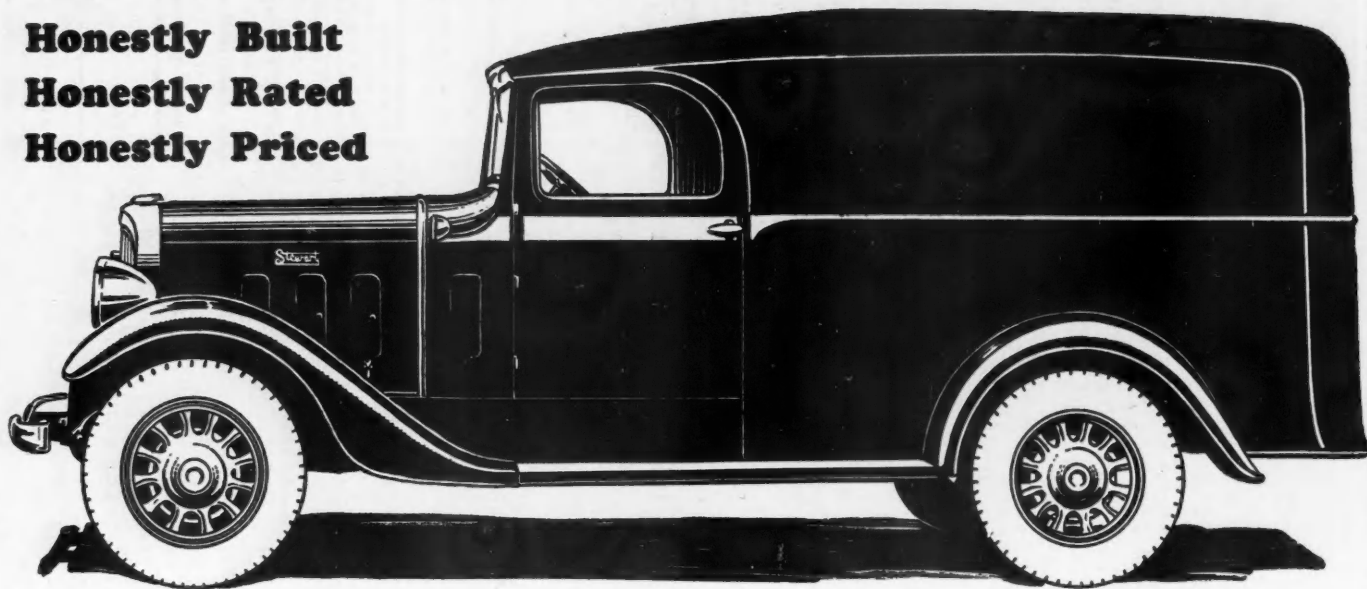
We experimented with various makes of governors to find one to curb the fast driving. The drawbacks to most makes were that either a driver could tamper with it, changing the pre-determined speed by various tricks, or in a tight place where power was necessary to avoid an accident, certain types would cut off. In the make we are using at the present time, these disadvantages have been overcome. They are key-set and cheat proof.

These governors are set at 30 miles per hour, which we think is fast enough for truck operation. This means a speed of 44 feet per second, and the minimum stop you can expect to make with four

Line Number	ENGINE DETAILS										SYST. FUEL	ELEC. TRICAL	FRONT AXLE	BRAKES		BODY MOUNTING DATA		SPRINGS		Auxiliary Type											
	Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	MAIN BEARINGS		Governor Make				Carburetors Make	Fuel Feed	Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make		Universals Make	Make and Model	SERVICE		Hand Location, Type	Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Front	Rear	
								Number and Diameter	Length														Lining Area	Drum Material							
1529	4.9	350	51.3	115-2200	L	A	7-3	12 1/2	PC	Ha	Str	M	AL	AL	P.B.L	Yo	Spl	Wis	Ros	L61HV	...	G	CD	142	87 1/2	34	44x3	52x4	N		
1779	4.5	505	66.2	163-2000	L	A	7-3	17 1/2	PC	Ha	Str	M	AL	AL	P.B.L	Yo	Spl	Wis	Ros	W61A	...	G	CD	144	88	34	44x3	42x4	N		
8555	4.5	555	72.8	180-2000	L	A	7-3	17 1/2	PC	Ha	Str	M	AL	AL	P.B.L	Yo	Spl	Wis	Ros	W61A	...	G	CD	168	100	34	44x3	42x4	N		
282	4.7	170	35.7	73-2700	L	A	7-3	10 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	31000H	Ros	L61HV	536	a	FD	168	102	31 1/2	38x2 1/2	52x4	N	
361	4.4	235	40.8	83-2400	L	A	7-3	13 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	33000H	Ros	L61HV	536	a	FD	168	102	31 1/2	38x2 1/2	52x4	N	
393	4.6	260	42.1	103-2600	L	A	7-3	11 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	33000H	Ros	L61HV	536	a	FD	168	102	31 1/2	38x2 1/2	52x4	N	
7415	...	388	48	93-2000	L	A	7-3	11 1/2	FP	Pe	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	35120TW	Ros	W61A	781	A	FD	192	120	31 1/2	42x3	52x4	N
453	4.7	300	48.6	98-2200	L	A	7-3	14	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	35000N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
501	4.9	330	5.6	110-2200	L	A	7-3	12 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	36020N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
672	...	420	57	125-1800	L	A	7-3	13 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	36020N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
1148	4.4	322	43.3	125-2400	L	A	7-3	10 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	36020N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
638	4.3	410	54.1	126-1850	L	A	7-3	10 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	36020N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
1370	4.4	506	60.0	170-2000	L	A	7-3	11 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	36020N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
1470	4.4	506	60.0	170-2000	L	A	7-3	11 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	36020N	Ros	W61A	815	a	FD	192	120	33 1/2	42x3	56x4	N	
1526	5.4	164	31.5	70-3000	L	A	7-3	10 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	30000H	Ros	L61HV	559	G	TD	168	104	34	38x2 1/2	56x4	N	
1639	4.2	212	38.4	90-2700	L	A	7-3	13 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	30020H	Ros	L61HV	559	G	TD	170	108	34	38x2 1/2	56x4	N	
127	4.2	270	45.9	118-2500	L	A	7-3	13 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	33020H	Ros	L61HV	559	G	TD	180	118	34	38x2 1/2	56x4	N	
18	4.5	1510	76.7	240-2900	L	A	7-3	10 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	27450TW	Ros	W61A	782	D	CD	11 1/2	216	34	44x3	None	N	
420	5.2	300	44.4	130-2800	L	A	7-3	12 1/2	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spl	Tim	35000H	Ros	L61HV	525	a	CD	162	108	34	39x2 1/2	39x2 1/2	N	
420	5.2	300	44.4	130-2800	L	A	7-3	12 1/2	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spl	Tim	35000H	Ros	L61HV	525	a	CD	162	108	34	39x2 1/2	39x2 1/2	N	
462	4.5	300	45.9	98-2000	L	A	7-3	13 1/2	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spl	Tim	35000H	Ros	W61A	711	a	CD	162	108	34	39x2 1/2	46x3 1/2	N	
462	4.5	300	45.9	98-2000	L	A	7-3	13 1/2	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spl	Tim	35000H	Ros	W61A	711	a	CD	162	108	34	39x2 1/2	46x3 1/2	N	
549	4.5	332	48.6	100-2000	L	A	7-3	11 1/2	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spl	Tim	26045W	Ros	W61A	966	a	CD	162	108	34	48x3 1/2	53x4	N	
677	4.6	460	60.0	127-2000	L	A	7-3	11 1/2	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spl	Tim	27045W	Ros	W61A	792	a	CD	162	108	34	48x3 1/2	53x4	N	
754	4.1	322	43.3	125-1800	L	A	7-3	16 1/2	FP	Wa	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	27450TW	Ros	W61A	966	a	CD	162	108	34	48x3 1/2	53x4	N	
685	5.2	310	13.4	117-2400	L	A	7-3	12 1/2	FP	Pe	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	27450TW	Ros	W61A	966	a	CD	162	108	34	48x3 1/2	53x4	N	
611	5.7	398	54.2	128-2300	L	A	7-3	10 1/2	FP	Wa	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	30000H	Ros	W61A	974	a	FX	192	109	33 1/2	54 1/2 x 3	48x3 1/2	N	
611	5.7	398	54.2	128-2300	L	A	7-3	10 1/2	FP	Wa	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	30000H	Ros	W61A	974	a	FX	192	109	33 1/2	54 1/2 x 3	48x3 1/2	N	
611	5.7	398	54.2	128-2300	L	A	7-3	10 1/2	FP	Wa	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	30000H	Ros	W61A	974	a	FX	192	109	33 1/2	54 1/2 x 3	48x3 1/2	N	
706	4.4	427	60.0	138-1900	L	A	7-3	11 1/2	PC	Wa	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	26045W	Ros	W61A	966	a	CD	162	108	34	48x3 1/2	53x4	N	
706	4.4	427	60.0	138-1900	L	A	7-3	11 1/2	PC	Wa	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	26045W	Ros	W61A	966	a	CD	162	108	34	48x3 1/2	53x4	N	
529	4.9	350	51.3	115-2200	L	A	7-3	12 1/2	PC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	35000H	Ros	W61A	711	a	CD	162	108	34	39x2 1/2	46x3 1/2	N	
707	4.5	460	60.0	148-2000	L	A	7-3	17	PC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	35000H	Ros	W61A	711	a	CD	162	108	34	39x2 1/2	46x3 1/2	N	
779	4.5	508	66.2	164-2000	L	A	7-3	17	PC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	35000H	Ros	W61A	711	a	CD	162	108	34	39x2 1/2	46x3 1/2	N	
282	5.0	176	33.8	73-2800	L	A	7-3	10 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	30000H	Ros	L61H	412	a	TD	168	71	34	40x2 1/2	44x3	N	
282	5.0	176	33.8	73-2800	L	A	7-3	10 1/2	FP	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	30000H	Ros	L61H	412	a	TD	168	71	34	40x2 1/2	44x3	N	
383	4.4	262	43.3	92-2400	L	A	7-3	13 1/2	PC	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	33020H	Ros	L61H	578	a	TD	192	101	34	41 1/2 x 2 1/2	42x2 1/2	N	
383	4.4	262	43.3	92-2400	L	A	7-3	13 1/2	PC	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	33020H	Ros	L61H	578	a	TD	192	101	34	41 1/2 x 2 1/2	42x2 1/2	N	
501	4.9	330	48.6	110-2200	L	A	7-3	12 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	26450TW	Ros	W61A	898	a	TD	216	113	34	42x3	43 1/2 x 4 1/2	N	
611	4.5	384	54.1	127-2300	L	A	7-3	13 1/2	CC	No	Zen	M	DR	DR	P.B.L	Pe	Spl	Tim	27050W	Ros	W61A	966	a	TD	Opt	Opt	38	44x3	48x3 1/2	N	
358	5.0	254	38.5	110-2800	F	G	4-3 1/2	12 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	35000N	Ros	L41HV	596	a	CX	192	91	34	42x2 1/2	57x4	N	
358	5.0	254	38.5	110-2800	F	G	4-3 1/2	12 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	35000N	Ros	L41HV	596	a	CX	192	91	34	42x2 1/2	57x4	N	
549	4.5	330	48.6	99-2000	L	A	7-3	11 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	26450N	Ros	W61A	792	a	CX	Opt	88	34	48x3	58x4	N	
677	4.4	440	60.0	125-2000	L	A	7-3	11 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	27450N	Ros	W61A	792	a	CX	Opt	89	34	48x3	58x4	N	
677	4.4	440	60.0	125-2000	L	A	7-3	11 1/2	CC	Ha	Str	M	DR	DR	P.B.L	Pe	Spl	Tim	27450N	Ros	W61A	792	a	CX	Opt	89	34	48x3	58x4	N	
462	4.5	324	40.8	95-2500	L	A	7-3	12 1/2	CC	Ha	Str	M	DR																		

STEWARTS...

**Honestly Built
Honestly Rated
Honestly Priced**



**1 Ton
De Luxe Panel**

Stewart owners do not figure depreciation on a one or two year basis; they know by experience that a Stewart will last for many years.

Ability to stay on the road and out of the repair shop has earned the world-wide reputation — "Stewart Trucks have won—By costing less to run."

Before you buy any truck, see the Stewarts. Check them point for point with other makes. Try a road test. Get behind the wheel and you'll get the true picture of what modern truck performance should be. Stewarts are built by an exclusive truck maker. They're honestly rated, honestly priced, designed in a wide range of models and wheelbases to meet every trucking need.

Stewart
MOTOR TRUCKS

STEWART MOTOR CORPORATION
BUFFALO, N. Y.

MODELS

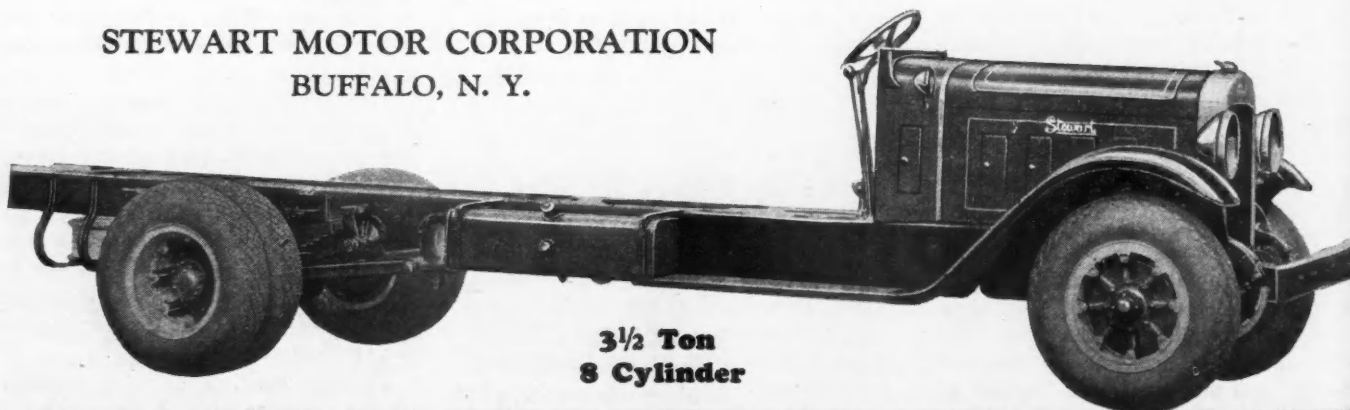
Bevel Axle

$\frac{3}{4}$ Ton.....	6 Cyl.
1 Ton.....	6 Cyl.
$1\frac{1}{2}$ Ton.....	6 Cyl.
2 Ton.....	6 Cyl.
$2\frac{1}{2}$ Ton.....	6 Cyl.
3 Ton.....	6 Cyl.
3 Ton.....	8 Cyl.
$3\frac{1}{2}$ Ton.....	8 Cyl.

Worm or Double Gear Reduction

$3\frac{1}{2}$ Ton.....	6 Cyl.
$3\frac{1}{2}$ -5 Ton.....	6 Cyl.
$3\frac{1}{2}$ -5 Ton.....	8 Cyl.
5-6 Ton.....	6 Cyl.
7-8 Ton.....	6 Cyl.

*Bodies for Every
Business*

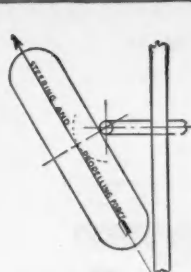
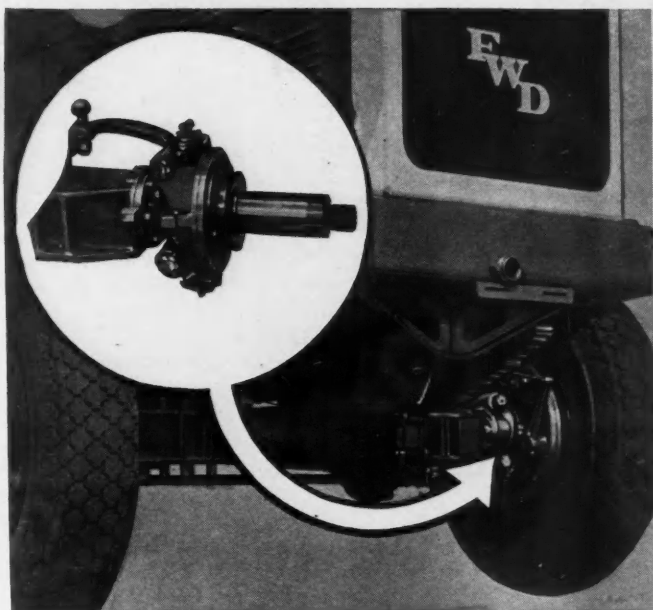


**$3\frac{1}{2}$ Ton
8 Cylinder**

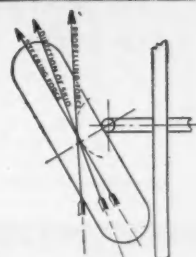
Stewart Trucks have won—By costing less to run

Controlled Power...

The FWD front axle permits easy steering while power is applied to the front wheels. It is exactly like a rear axle except at the steering ends. The drive to the wheels is effected through single universal joint at the outer ends of the axle shafts, which freely transmits the power to the wheels in any steering position. The axle universal joint is entirely enclosed in a ball and socket joint (shown in inset), which carries the front axle load and permits easy steering. The simplicity and efficiency of the FWD front axle steering and driving ends accounts for its perfect operation. Twenty-three years of engineering refinement gained through the successful operation of more than 30,000 trucks has made this steering knuckle the most trouble-free unit. It actually requires less attention than the steering ends of a non-driving front axle.



The propelling force to the front axle of the FWD truck is always in the same direction in which the truck is steered, regardless of whether it is straight ahead or not. The tendency to skid has been greatly reduced.



The propelling force (push) to the front axle of a rear drive truck is always straight ahead. This force works against the steering force when the wheels are cramped, which has a tendency to make the truck skid.



Capacity of Tank 2500 Gallons

FWD TRUCKS

BACKED BY NATION-WIDE SERVICE

THE FOUR WHEEL DRIVE AUTO COMPANY, Clintonville, Wisconsin
Canadian Factory: Kitchener, Ontario

☐ The Snow Removal Problem ☐ Use of Extreme Pressure Lubricants ☐ 1934
Size and Weight Restrictions for Every State in U. S. ☐ Effects of Front
Wheel Stability on Public Safety ☐ Report by Purdue University Regarding
Efficiency Test ☐ Cutting Costs with the FWD Road Maintainer.

Mr. _____ Title _____

Address _____

City _____ State _____

Drive it



Only a few minutes at the wheel will convince anyone that Marmon-Herrington all-wheel-drive trucks are first in performance—first in dollar-for-dollar value.

A complete all-wheel-drive line—5 series... 28 models... capacities 1½ tons and upward.

Write today for fully illustrated 16-page magazine—just off the press—giving you the detailed story of why Marmon-Herrington is first in the all-wheel-drive field.

MARMON-HERRINGTON
Indianapolis, Indiana, U. S. A.

FOR REAL ECONOMY

Exide


BATTERIES

FOR EVERY TYPE TRUCK

THE ELECTRIC STORAGE BATTERY CO.
Philadelphia

The World's Largest Manufacturers of Storage Batteries for Every Purpose
Exide Batteries of Canada, Limited, Toronto

A Tight Connection All the Time



TRADE MARK
NOCO-OUT
THE
HOSE CLAMP
WITH THE THUMBSCREW

Standard equipment hose clamp of the automotive and airplane industry. Your jobber has them.

4307 W. 24TH PL. **WITTEK**
CHICAGO, ILL. MFG. CO.

GM San Diego Branch

Fair's Truck & Car Service in San Diego, Cal., has become General Motor Truck Co. San Diego Factory Branch. Rudy Toussaint has been appointed zone manager. Rene Fair is service manager. Quarters are at 832 K Street.

News

(CONTINUED FROM PAGE 35)

Fulton and Brink

Dodge Brothers Corp. has appointed V. M. Fulton South Detroit district representative succeeding A. C. Graham, who has been transferred to the company's home office. H. L. Brink succeeds F. R. French as the North Detroit district representative.

Winchester Gets Zone Post

Frank Winchester, who was with Motor Wheel for 10 years as sales engineer in the truck wheel division and for the past year with General Motors Truck as sales engineer at the factory, is now with the General Motors Truck Branch in Detroit as zone transportation engineer.

Cook Named by Cosart

Lee Cosart, manager of the Chicago region of the Dodge sales organization, announces the appointment of J. A. Cook, as truck representative in the Chicago city district of the Chicago region.

Chevrolet Service Changes

Expansion of the Chevrolet parts and service division at the factory is indicated with the appointment of two new assistants to M. D. Douglas, general parts and service manager. The assistants are I. W. Thompson and C. W. Wood, formerly regional parts and service managers at Buffalo and St. Louis respectively. They are succeeded by P. Eliason and R. P. Bruner.

Woolsey Represents Stewart

The Stewart Motor Corp. announces that W. S. Woolsey will represent Stewart trucks in Eastern New York State, as well as the State of Connecticut and Northern New Jersey. Mr. Woolsey will make his Eastern headquarters at the Hotel Douglas, Newark, N. J.

Perkins Joins White

Dow W. Perkins, formerly with the Mack company and S. P. A. Truck Corp., has joined the Coach Division of The White Co.

LUCE MASTERCRAFT

TRUCK

BODIES

Production
and
Custom Built
Body Equipment
Vocationally Designed
LUCE MANUFACTURING CO.
Lansing, Michigan

DEMOUNTABLE TRUCK BODIES

WRITE FOR CATALOG

ROLOFF, INC.
KENDALL SQUARE
BOSTON, MASS.

IT'S EASY TO GET

Genuine Gunite Brake Drums

It isn't necessary to take "something just as good"—over 200 warehouse stocks are maintained in various parts of the country.

Insist that the drums you buy carry the Gunite Label—demand that Extra mileage and Extra Braking power at a lower cost per mile.

FREE—Send for our big 1934 Catalog which lists replacement drums for every make of car, truck or bus.

GUNITE FOUNDRIES CORP.
Dept. CC-5 Rockford, Ill.

Rose With American Cable

American Cable Co. appointed Joseph H. Rose, formerly with Owen-Dyneto Co. to assist in the sale of automotive products manufactured by the American Cable Co., namely, Tru-Stop brakes, etc. He will work out of the Detroit office.

JUDGE

by what **OTHERS** are doing

MORE convincing than all the sales talks—more conclusive than any printed claims—are these two facts: most haulers use Trailers—the big majority use Fruehaufs... Before you buy any haulage equipment—judge by what others are doing. If you want economy—use Trailers. If you want utmost economy—use Fruehaufs.

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Detroit, Michigan